# VAMC Chillicothee Rehab B18 Machine Room

Department of Veterans Affairs Medical Center 17273 State Route 104 Chillicothee, Ohio 45601

JOHN POE ARCHITECTS

ARCHITECTURE PLANNING INTERIOR DESIGN 116 EAST THIRD STREET DAYTON, OHIO 45402 937.461.3290 P 937.461.0260 F

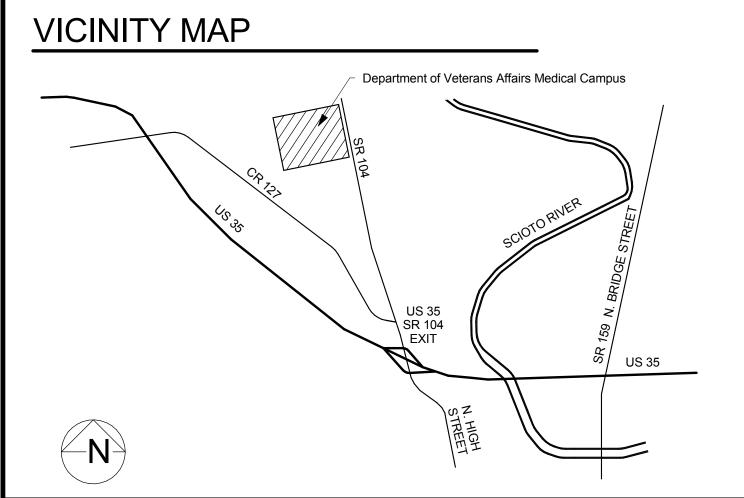
# HEAPY ENGINEERING

MECHANICAL ELECTRICAL COMMISSIONING TECHNOLOGY 1400 WEST DOROTHY LANE DAYTON, OH 45409 937.224.0861 P 937.224.5777 F

# GENERAL CONSTRUCTION NOTES

- \* PLEASE NOTE THAT THE TERM PROJECT ENGINEER REFERS TO THE CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE.
- SPRINKLER DESIGN BASED ON FIRE PROTECTION DRAWINGS AND SPECIFICATIONS AS SUBMITTED BY THE M.E.P. ENGINEERS WILL BE SUBJECT TO AN INDEPENDENT REVIEW BY A CERTIFIED REVIEWER. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR MAKING ALL ARRANGEMENTS FOR THIS INDEPENDENT REVIEW.
- 2. ALL WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE OR, NATIONAL CODES, RULES, ORDINANCES AND REGULATIONS INCLUDING THE AMERICAN DISABILITIES ACT (ADA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) GUIDELINES.
- IT IS INTENDED THAT THE DOCUMENTS INDICATE A NEW FINISH (I.E. PAINT. ACOUSTIC CEILING, FLOOR TILE, ETC.) ON ALL EXPOSED SURFACES OF THE BUILDING. WHERE A SPECIFIC FINISH IS NOT INDICATED AT ANY GIVEN LOCATION THE CONTRACTOR SHALL PROVIDE THE FINISH INDICATED FOR OTHER SIMILAR SURFACES.
- 4. THE PROJECT ENGINEER SHALL PROVIDE TEMPORARY ACESS TO SERVICES REQUIRED TO FACILITATE THE WORK INDICATED, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: POWER, LIGHTING, HEAT, AND WATER
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO NOTIFY THE PROJECT ENGINEER OF ANY WORK WHICH MIGHT REQUIRE INTERRUPTION OF UTILITY SERVICES, CAUSE NOISE, OR CREATE VIBRATION. PRIOR TO THE COMMENCEMENT OF THIS WORK, THE CONTRACTOR'S WORK AND SCHEDULE SHALL BE APPROVED AND COORDINATED BEFORE HAND WITH THE PROJECT ENGINEER AND/OR ARCHITECT. SEE GENERAL CONDITIONS FOR FURTHER
- 6. THE GENERAL CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE SPECIFICATIONS, INCLUDING ALL GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS. AND MATERIAL AND CONSTRUCTION PROVISIONS, WHICH APPLY TO MATERIALS OR CONSTRUCTION METHODS REQUIRED BY THIS PROJECT.
- 7. PRIOR TO BIDDING, THE GENERAL CONTRACTOR SHALL VISIT SITE, EXAMINE AND ACCEPT ALL EXISTING CONDITIONS. DATES FOR SITE VISITS WILL BE POSTED IN THE SPECIFICATIONS. UNSCHEDULED VISITS WILL NOT BE
- 8. DO NOT PAINT ANY CAULKING OR SEALANTS WHICH ARE SUBJECT TO MOVEMENT - CONTROL JOINTS SHALL BE CAULKED AFTER PAINT AND SPECIAL COATING APPLICATIONS. PROVIDE CAULKING OR SEALANTS IN COLORS WHICH MATCH ADJACENT FINISHED SURFACE COLORS.
- 9. VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD BEFORE FABRICATING
- 10. ALL EXISTING CONSTRUCTION TO REMAIN THAT ARE DAMAGED OR DISTURBED DURING CONSTRUCTION SHALL BE PATCHED OR RESTORED AS REQUIRED TO MATCH EXISTING ADJACENT CONSTRUCTION UNLESS OTHERWISE INDICATED. CONTRACTOR TO PATCH AND REPAIR EXISTING CONSTRUCTION REMOVED OR DISTURBED BY WORK UNDER THEIR CONTRACT TO MATCH EXISTING ADJACENT UNLESS OTHERWISE NOTED.
- 11. IT IS THE INTENT OF THE DOCUMENTS TO INDICATE COMPLETE AND OPERATIONAL SYSTEMS (I.E. STRUCTURAL, HVAC, PLUMBING, ELECTRICAL AND ETC.) THE CONTRACTOR SHALL PROVIDE THE SYSTEMS AS OPERATIONAL SYSTEMS WHICH COMPLY WITH APPLICABLE CODES AND REGULATIONS. THIS NOTE SHALL BE LIMITED TO THE SYSTEMS AS INDICTED BY THE DOCUMENTS AND SHALL NOT INCLUDE CHANGES TO THE SYSTEMS WHICH ALTER INDICATED CAPACITIES, OPERATIONAL CHARACTERISTICS, ETC.

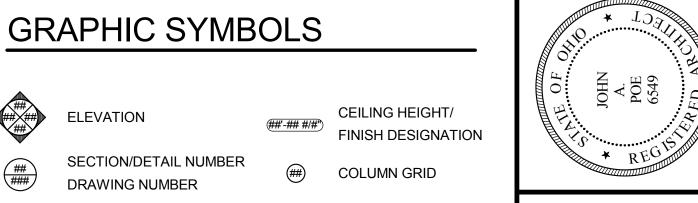
- 12. THE GENERAL CONTRACTOR SHALL PROVIDE FIRE-RETARDANT TREATED 2X BLOCKING IN THE STUD CAVITY AT ALL LOCATIONS REQUIRED TO PROVIDE SOLID ANCHORAGE OF WALL SUPPORTED ITEMS INDICATED BY THE DRAWINGS. INCLUDING BUT NOT LIMITED TO: GRAB BARS. SHELVING. CABINETS, AND KITCHEN EQUIPMENT. CONTRACTOR'S OPTION TO PROVIDE GALV. 16 GA BY THE DEPTH OF THE WALL METAL STUDS AS BLOCKING UNLESS
- WOOD BLOCKING IS SPECIFICALLY CALLED FOR BY THE MANUFACTURER. 13. ALL WOOD BLOCKING, MISC. FRAMING, PANELS, ETC THAT ARE TO BE USED SHALL BE FIRE-RETARDANT TREATED.
- 14. THE GENERAL CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR INFORMATION CONCERNING ALL SIGNAGE WHICH SHALL BE PROVIDED BY THE OWNER, AND SHALL MAKE PROVISIONS FOR INSTALLATION OF SUCH SIGNAGE, INCLUDING VERIFICATION OF DIMENSIONS (ADEQUATE SPACE AT THE DESIRED INSTALLATION LOCATION), AND SHALL BRING ANY CONFLICTS TO THE ATTENTION OF THE PROJECT ENGINEER AND THE ARCHITECT.
- 15. THE GENERAL CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER TO VERIFY THE SIZES OF ALL EQUIPMENT OR FIXTURES TO BE INSTALLED IN THE BUILDING, AND SHALL MAKE SPECIAL PROVISIONS FOR INSTALLATION OF ANY EQUIPMENT WHICH IS TOO LARGE TO FIT THROUGH A FINISHED OPENING.
- 16. ALL CONTRACTORS SHALL BE RESPONSIBLE TO PATCH AND REPAIR ALL SURFACES WHERE EXISTING CONSTRUCTION IS REMOVED OR DISTURBED BY WORK UNDER THEIR CONTRACT.
- 17. THE CONTRACTOR IN CONJUNCTION WITH HIS WORK SHALL BE RESPONSIBLE TO PATCH AND REPAIR ALL EXISTING SUBSTRATES AND FINISHES INCLUDING BUT NOT LIMITED TO EXISTING WALLS, FLOORS, BASES, WAINSCOTS, CEILINGS WINDOWS, WINDOW TRIM, WOOD WORK, DOORS, FRAMES, ETC. (UNLESS INDICATED OTHERWISE) AND PREPARE AREAS AS REQUIRED FOR NEW CONSTRUCTION FINISHES. WHERE WORK IS PERFORMED AND NO FINISH IS SPECIFICALLY INDICATED THE CONTRACTOR IS RESPONSIBLE TO PATCH, REPAIR AND PAINT TO MATCH ALL EXISTING ADJACENT MATERIALS, FINISH AND PAINT ALL WORK TO PROVIDE A COMPLETE, FINISHED, WORKMANLIKE JOB, ALL SUBJECT TO THE APPROVAL OF THE ARCHITECT
- 18. PATCH ALL EXISTING WALLS AND CEILINGS THAT ARE TO REMAIN (EXCEPT WHERE NOTED) AS REQUIRED TO PROVIDE A SOUND BASE FOR NEW FINISHES SUCH AS PAINT, ETC. ALL PATCHING TO MATCH EXISTING ADJACENT SURROUNDING AREAS AND SURFACES.
- 19. IN ADDITION TO SPECIFIC REQUIREMENTS, THE GENERAL INTENT OF PAINTING AND TRANSPARENT FINISHES IS AS FOLLOWS: WHERE SURFACES ARE INDICATED TO BE PAINTED OR TRANSPARENT FINISH APPLIED, ALL OPENINGS, NEW AND EXISTING, INCLUDING WINDOWS, DOORS, FRAMES, TRIM, BASE, ETC SHALL BE FINISHED OR REFINISHED IN CONJUNCTION WITH SURROUNDING WORK. WHERE SURFACES ARE NOT INDICATED TO BE PAINTED OR TRANSPARENT FINISH APPLIED IN THIS CONTRACT, ITEMS OF NEW WORK OR REPAIR WORK ONLY SUCH AS WALLS, CEILING, DOORS, FLOORS, WINDOWS, ETC. SHALL BE FINISHED TO MATCH EXISTING ADJACENT FINISHES, EXISTING ADJACENT FINISH SHALL REMAIN. SEE ROOM FINISH SCHEDULE AND DOOR SCHEDULE FOR FINISHES. THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL FINISHES WITH THE ARCHITECT PRIOR TO EXECUTION OF THE WORK.
- 20. ALL SUSPENDED ITEMS SUCH AS CEILINGS, DUCTS, PIPES, CONDUITS. ETC SHALL BE SUSPENDED (ATTACHED) DIRECTLY TO STRUC AND SHALL NOT BE ATTACHED OR ANCHORED TO EXISTING PLASTER, ACOUSTIC TILE, ETC.
- 21. ALL PENETRATIONS SUCH AS NEW OR EXISTING DUCTS, CONDUITS, PIPING, ELECTRICAL OUTLETS, LIGHT SWITCHES, RECESSED DEVICES OR ITEMS, HOLES, VOIDS, CRACKS, ETC. IN ALL EXISTING, MODIFIED AND NEW CORRIDOR WALLS, SMOKE PARTITIONS, AND FLOOR SLABS SHALL BE SEALED TO PREVENT PASSAGE OF ANY SMOKE, FLAME, GASES, ETC.. SEE PLUMBING HVAC, FIRE PROTECTION, ELECTRICAL, ETC. DRAWINGS AND SPECIFICATIONS.
- 22. WHERE NEW CONSTRUCTION (I.E. DOORS, FRAMES, CASEWORK, EQUIPMENT, ETC.) IS INDICATED TO BE INSTALLED IN EXISTING CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS FOR PROPER FIT AND FOR ACCESS INTO THE BUILDING PRIOR TO SHOP DRAWING SUBMITTAL, ORDERING AND DELIVERING TO THE SITE.



# DRAWING INDEX

PRINTING 2-8-2013- Bid Set

**REVISIONS** 



his drawing and all original design work contained herein represents the unpublished work of John Poe Architects, Inc. intended solely for use related to the project listed herein and shall not be reproduced in any fashion without the expressed written consent of John Poe Architects, Inc. COPYRIGHT 2013

VA PROJECT NO. 538-12-119 JPA PROJECT NO. 12022.00 DATE 12/27/2012

ROOM NUMBER

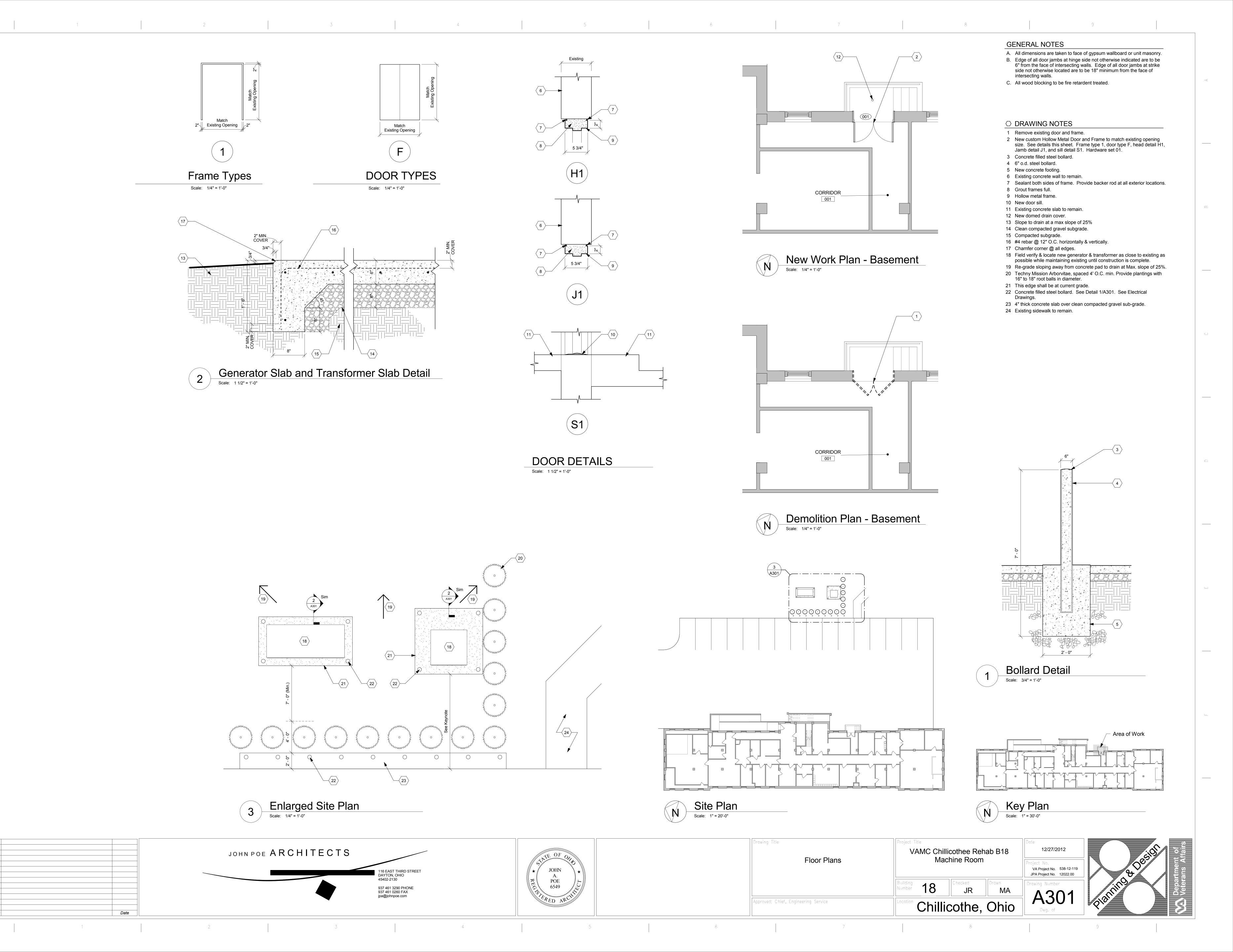
DOOR OPENING

WINDOW OPENING

**ELEVATION** 

##\ REVISION

DRAWING NUMBER



one-eighth inch = one foot

**LEGEND** GENERAL CONTRACTOR P.C. PLUMBING CONTRACTOR F.S.C. FIRE SUPPRESSION CONTRACTOR HVAC CONTRACTOR ELECTRICAL CONTRACTOR "CONNECT TO EXISTING" SYMBOL "NOTE" SYMBOL ROOM NUMBER EXISTING PIPE TO REMAIN —————— DOMESTIC COLD WATER PIPE (DCW) —————— DOMESTIC HOT WATER PIPE (120 DEGS. F, DHW) — - — DIRECTION OF FLOW REFRIGERANT PIPE ROUTE

	AIR DISTRIBUTION DEVICES							
SYMBOL	DESCRIPTION		OUNTING SURFACE		ERIAL ALUM.	FINIS E.C.L.	W.B.E.	NOTES
CD1	LINEAR BAR DIFFUSER		•		•		•	0.25" SPACING, 0.125" BARS, 0° DEFLECTION

D	UCT PRESSURE C	:LA	SS &	LEA	KAGE	TABLI	_ -
SYSTEM	DUCT INVOLVED		POSITIVE (P) OR NEGATIVE (N) PRESSURE	SMACNA CONST. CLASS W.G.	SMACNA SEAL CLASS	SMACNA LEAK	ROUND
ALL	ALL DUCTWORK EXCEPT.		P/N	±2"	A	DUCT 12	DUCT 6
SYSTEMS							

### **EQUIPMENT DATA**

18-H1 5 TON DX COMPUTER ROOM AIR CONDITIONING UNIT 18-H3 FLOOR SET UNIT WITH STAND FOR RAISED FLOOR APPROXIMATE SIZE: 30.6" x 30.6" x 76" HIGH SUPPLY FAN: 2700 CFM, 0.5 E.S.P. 3.6 HP MOTOR COOLING CAPACITY 57.6 MBH TOTAL, 50.9 MBH SENSIBLE AT 75 DB / 62.5 WB, 50% RH HUMIDIFIER: ELECTRODE STEAM CANISTER 4-10 LBS/HR, 3.4KW, MODULATING REHEAT: ELECTRIC 9 KW ELECTRIC: 45.4 FLA. - 208 VOLT, 3 PH., 56.7 MCA, 60 MOCP

18-H2 PROP FAN CONDENSING UNIT 18-H4 SIZE: 33"L x 42"W x 28" HICH LOW AMBIENT CONTROL -30 DEG. ELECTRIC: 21.6 FLA - 208 VOLT, 3 PHASE, 25.7 MCA, 40 MOCP

# CONTROL SEQUENCES

# SEQUENCE OF OPERATION FOR COMPUTER RM A/C UNITS

1 <u>GENERAL</u>

1.1 EACH COMPUTER ROOM A/C UNIT SHALL OPERATE VIA THEIR OWN CONTROLS TO MAINTAIN TEMPERATURE

1.2 DDC SYSTEM SHALL MONITOR, ENABLE, AND DISABLE EACH UNIT INDIVIDUALLY.

1.3 ALL FOUR INDOOR UNITS AND ALL FOUR OUTDOOR UNITS SHALL BE FULLY INTEGRATED INTO THE DDC SYSTEM. SEE BELOW. THIS INTEGRATION IS DEDUCT ALTERNATE #2.

1.4 18-H1 - NEW 5 TON COMPUTER ROOM A/C UNIT-NEW LEAD UNIT 18-H3 - NEW 5 TON COMPUTER ROOM A/C UNIT-NEW LAG UNIT H1 - EXISTING 10 TON COMPUTER ROOM A/C UNIT-EXIST LEAD UNIT H2 - EXISTING 10 TON COMPUTER ROOM A/C UNIT-EXIST LAG UNIT

1.5 ALL SETPOINTS SHALL BE ADJUSTABLE.

2 <u>TEMPERATURE CONTROL</u>

2.1 18-H1 SHALL BE ENABLED TO MAINTAIN ROOM SETPOINT (75 DEG. F).

2.2 WHILE 18-H1 IS ENABLED, IF TEMPERATURE RISES TWO DEGREES ABOVE SETPOINT, 18-H3 SHALL BE

2.3 WHILE 18-H1 AND 18-H3 ARE ENABLED, IF ROOM TEMPERATURE RISES TWO DEGREES ABOVE INITIAL

SETPOINT (75 DEG. F), H1 SHALL BE ENABLED AND 18-H1 SHALL BE DISABLED.

2.4 WHILE 18-H3 AND H1 ARE ENABLED, IF ROOM TEMPERATURE RISES TWO DEGREES ABOVE INITIAL SETPOINT (75 DEG. F), 18-H1 SHALL BE RE-ENABLED.

2.5 WHILE 18-H1, 18-H3 AND H1 ARE ENABLED, IF ROOM TEMPERATURE RISES TWO DEGREES ABOVE INITIAL SETPOINT (75 DEG. F). H2 SHALL BE ENABLED.

2.6 ALTERNATE 18-H1 AND 18-H3 LEAD/LAG MONTHLY.

2.7 ALTERNATE H1 AND H2 LEAD/LAG MONTHLY.

3 <u>AUTOMATIC SHUTDOWN</u> (WORK TO BE INCLUDED EVEN IF DEDUCT ALTERNATE #2 IS ACCEPTED) 3.1 UPON SIGNAL FROM BUILDING FIRE ALARM, 18-H1 AND 18-H3 SHALL SHUT DOWN AND ASSOCIATED SMOKE

DAMPERS SHALL CLOSE. A SUPERVISORY SIGNAL SHALL INDICATE AT THE DCP AND ECC IF DEDUCT ALTERNATE #2 IS NOT ACCEPTED. 3.2 UPON SIGNAL FROM "EMERGENCY POWER OFF" (EPO) SWITCH, 18-H1, 18-H3, EXISTING UNIT H1, AND

EXISTING UNIT H2 SHALL SHUT DOWN. A SUPERVISORY SIGNAL SHALL INDICATE AT THE DCP AND ECC IF DEDUCT ALTERNATE #2 IS NOT ACCEPTED.

#### COMPUTER ROOM A/C UNIT DDC INTEGRATION DEDUCT ALTERNATE #2

COMPUTER ROOM A/C UNIT INTEGRATION SHALL INCLUDE, BUT NOT BE LIMITED TO: UNIT OFF UNIT ON 13. RETURN HUMIDITY 14. HUMIDITY SET POINT UNIT PARTIAL SHUTDOWN 15. COMPRESSOR HIGH HEAD UNIT SHUTDOWN 16. HUMIDIFIER ISSUE UNIT STANDBY MAINTENANCE DUE HUMIDIFIER UTILIZATION AIR TEMPERATURE SET POINT 18. DEHUMIDIFIER UTILIZATION SUPPLY AIR TEMPERATURE FAN ISSUE SUPPLY AIR TEMPERATURE SETPOINT . CONDENSER ISSUE RETURN AIR TEMPERATURE CLOGGED AIR FILTER 11. RETURN AIR TEMPERATURE SETPOINT SERVICE REQUIRED

# **ABBREVIATIONS**

ACCESS DOOR ABOVE FINISHED FLOOR AIR HANDLING UNIT

AUTOMATIC TEMPERATURE CONTROLS BACKWARD INCLINED WHEEL

ACCESS PANEL

BRITISH THERMAL UNITS PER HOUR

COOLING COIL CEILING DIFFUSER

CUBIC FEET PER MINUTE CEILING GRILLE

CLEAN OUT CONVECTOR CONV

CEILING REGISTER CONDENSING UNIT

CABINET UNIT HEATER COLD WATER

AUTOMATIC CONTROL DAMPER

DRY BULB TEMPERATURE, DEG. F DIRECT DIGITAL CONTROL PANEL

DEGREES FAHRENHEIT

DIRECT DIGITAL CONTROLS

DUCT HEATING COIL

DIRECT EXPANSION

EXHAUST AIR

ENGINEERING CONTROL CENTER ETCHED CLEAR LACQUER

ENERGY RECOVERY VENTILATOR

EXTERNAL STATIC PRESSURE

EXISTING

FLEXIBLE CONNECTION FAN COIL UNIT

FORWARD CURVED WHEEL FCW

FLOOR

FLOOR DRAIN

FIRE DAMPER **HEIGHT** 

HEATING COIL

HORSEPOWER

KILOWATT KILOWATTS PER HOUR KW/H

LENGTH

MECHANICAL EQUIPMENT ROOM

MINIMUM EFFICIENCY REPORTING VALUE

MAX. MAXIMUM

MINIMUM CIRCUIT AMPS

MINIMUM

MAXIMUM OVERCURRENT PROTECTION

NOMINAL NOM.

OUTSIDE AIR

PRESSURE DROP (FEET OF WATER)

PRE-FILTER RELATIVE HUMIDITY

SUPPLY AIR

STATIC PRESSURE (INCHES OF WATER)

TOP REGISTER (WALL TYPE)

**TYPICAL** 

DOOR UNDERCUT BY GENERAL CONTRACTOR

VOLUME DAMPER (MANUAL OPPOSED BLADE) VARIABLE REFRIGERANT VOLUME

WET BULB TEMPERATURE, DEG. F WHITE BAKED ENAMEL

WATER GAUGE

#### GENERAL NOTES

- 1. THESE NOTES APPLY EQUALLY TO THE FULL SET OF DOCUMENTS.
- 2. SITE VISIT(S) SHALL BE AS OUTLINED IN PROJECT SPECIFICATIONS.
- 3. INCLUDE ALL WORK NECESSARY TO ACCOMMODATE PHASING. REFER TO ARCHITECTURAL DRAWINGS AND GENERAL REQUIREMENTS SECTION 01 00 00.
- 4. INSULATE DUCTWORK AND PIPING WHERE EXISTING INSULATION HAS BEEN DAMAGED AND/OR REMOVED IN THE PERFORMANCE OF WORK IN THIS PROJECT.
- 5. THE CONTRACTORS SHALL REFER TO ALL SPECIFICATION SECTIONS AND THESE DRAWINGS FOR DETAILS OF BUILDING CONSTRUCTION TO ENSURE SPACE AND SATISFACTORY ARRANGEMENT FOR THEIR WORK. THE VARIOUS DRAWINGS COMPRISING THE SET ARE INTERDEPENDENT AND MUST BE USED JOINTLY AT ALL TIMES. EACH CONTRACTOR SHALL REFER TO THE GENERAL REQUIREMENTS OF THE CONTRACT. THE NOTES AND SYMBOLS INDICATED ON THE DRAWINGS ARE FOR THE GUIDANCE OF ALL TRADES INVOLVED IN THE PROJECT AND MUST BE FOLLOWED TO EXECUTE THE WORK AS INTENDED. IF DISCREPANCIES OCCUR, CONTACT THE PROJECT ENGINEER (COTR) THRU THE CONTRACTING OFFICER FOR CLARIFICATION BEFORE PROCEEDING.
- 6. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. SEE SPECIFICATIONS FOR MORE SPECIFIC DETAILS ON RESPONSIBILITIES.
- 7. ALL WORK MUST BE COORDINATED WITH THE CONTRACTING OFFICER AND PROJECT ENGINEER (COTR) TO MAINTAIN OPERATION OF THE EXISTING FACILITY.
- 8. EACH CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHERS. HE SHALL KEEP HIMSELF INFORMED OF THE PROGRESS AND DETAIL DEVELOPMENT OF THE WORK OF OTHERS AND SHALL BE RESPONSIBLE FOR COORDINATING AND EXPEDITING HIS WORK WITH OTHERS SO THAT THE PROGRESS OF THE TOTAL WORK SHALL BE KEPT ON SCHEDULE.
- 9. ALL WORK SHALL BE PERFORMED IN COMPLETE COMPLIANCE WITH ALL GOVERNING CODES AND STANDARDS.
- 10. EACH CONTRACTOR AND/OR TRADE, FITTING OR PLACING HIS WORK INTO OR ON THE WORK OF OTHERS DOES SO WITH THE UNDERSTANDING THAT THE INSTALLATION OF HIS WORK CONSTITUTES HIS ACCEPTANCE OF THE SUITABILITY OF THE WORK IN PLACE. IF THE WORK OF OTHERS IS NOT ACCEPTABLE, HE SHALL NOTIFY THE PROJECT ENGINEER (COTR) AND SUCH WORK SHALL BE CORRECTED. ANY NEW WORK INSTALLED IN UNSUITABLE EXISTING WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR TRADE INSTALLING THE NEW WORK. NO CLAIMS FOR ADDITIONAL COMPENSATION FOR CORRECTING WORK INSTALLED IN UNSUITABLE EXISTING CONDITIONS WILL BE CONSIDERED.
- 11. IF, IN THE PERFORMANCE OF THIS WORK, MATERIALS ARE OBSERVED WHICH ARE SUSPECTED TO CONTAIN ASBESTOS, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE COTR. WORK THAT WOULD EXPOSE WORKERS TO THE INHALATION OF ASBESTOS PARTICLES SHALL BE TERMINATED. WORK MAY BE RESUMED ONLY AFTER A DETERMINATION HAS BEEN MADE AND UNSAFE MATERIALS HAVE BEEN REMOVED OR ENCAPSULATED AND THE AREA DECLARED SAFE.
- RATED ASSEMBLIES SHALL BE FIRESTOPPED. IN ADDITION, PENETRATIONS THROUGH 0-HOUR RATED WALLS & FLOORS SHALL BE FIRESTOPPED TO RETARD PASSAGE OF FIRE &

12. ANNULAR SPACE OF ALL PIPE, CONDUIT, DUCT & OTHER SIMILAR PENETRATIONS OF FIRE

- 13. ALL PIPING, DUCTS, CONDUITS, ETC. IN FINISHED ROOMS, CORRIDORS, ETC. SHALL BE CONCEALED IN A FURRED CHASE OR ABOVE THE SUSPENDED CEILING.
- 14. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS.
- 15. DIFFUSER SIZES SHOWN ON FLOOR PLANS ARE NECK SIZES. REGISTER AND GRILLE SIZES ARE FACE SIZES.
- 16. ALL CUTTING AND PATCHING REQUIRED FOR THIS PROJECT SHALL BE INCLUDED IN THE

CAN BE ANTICIPATED.

17. THE CONTRACT DRAWINGS ARE NOT INTENDED TO SHOW EVERY VERTICAL OR HORIZONTAL OFFSET WHICH MAY BE NECESSARY TO COMPLETE THE SYSTEMS. COORDINATE WORK IN ADVANCE WITH ALL OTHER TRADES AND REPORT IMMEDIATELY AND DIFFICULTIES WHICH

CONTRACT. REFINISH ANY SURFACE DISTURBED UNDER THIS WORK TO MATCH EXISTING.

- 18. FIELD VERIFY EXISTING CONDITIONS, INCLUDING DUCT, PIPE AND EQUIPMENT SIZES, SERVICES AND LOCATIONS PRIOR TO PERFORMING WORK.
- 19. ALL ABANDONED EXTRANEOUS PIPING, DUCTWORK, SUPPORTS, CONTROLS, ETC. SHALL BE
- 20. ALL EXISTING DUCTWORK, PIPING, EQUIPMENT, CONTROLS, ETC. SHOWN DASHED SHALL BE REMOVED. THE MAJORITY OF WORK TO BE REMOVED IS SHOWN. REMOVE ALL INCIDENTAL ABANDONED DUCTWORK, PIPING, ETC. THAT MAY NOT BE SHOWN BUT IS ASSOCIATED WITH THE REMOVAL WORK.
- 21. ALL WORK IN THE COMPUTER EQUIPMENT ROOM AND TELEPHONE EQUIPMENT ROOM WILL NEED TO BE SUPERVISED BY VA PERSONNEL.
- 22. WHEN NEW SUPPLY AND RETURN AIR DUCTS ARE CONNECTED TO EXISTING DUCTWORK, CLEAN BOTH NEW AND EXISTING DUCTWORK BY MOPPING AND VACUUM CLEANING INSIDE AND OUTSIDE BEFORE OPERATION.

INDEX OF DRAWINGS SHEET DESCRIPTION LEGEND, INDEX AND SCHEDULES FLOOR PLANS 18M101

CONSULTANTS: Heapy Engineering Nationally Recognized Leader in Sustainability / LEED 1400 W Dorothy Lane, Dayton OH 45409-1310 Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com Heapy Project Number: 2012-04019 Firm License: 01528

ċ L

\$

CONTROL SEQUENCES

1.2 PROVIDE NEW CONTROLS AS REQUIRED FOR SEQUENCE BELOW.

2.3 STATUS OF FAN SHALL BE DISPLAYED AT THE DCP AND ECC.

1 GENERAL

1.1 FAN IS EXISTING TO REMAIN.

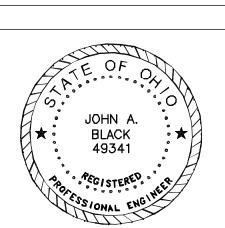
1.3 ALL SETPOINTS SHALL BE ADJUSTABLE.

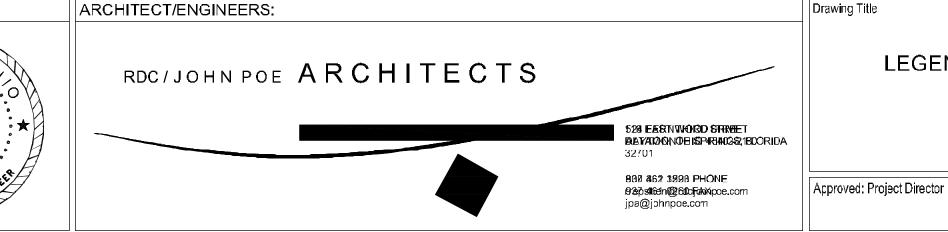
2 <u>TEMPERATURE AND HUMIDITY CONTROL</u>

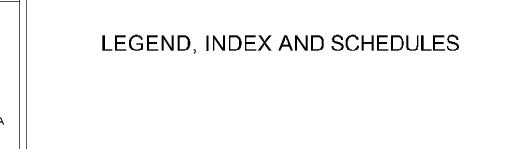
SEQUENCE OF OPERATION FOR ELEC SWITCHGEAR ROOM 014

2.1 IF TEMPERATURE RISES ABOVE SETPOINT (80 DEG. F), EXHAUST FAN SHALL START AND RUN CONTINUOUSLY.

2.2 IF RELATIVE HUMIDITY RISES ABOVE 60% RH, EXHAUST FAN SHALL START AND RUN CONTINUOUSLY.







REHAB B18 MACHINE ROOM Chillicothe, Ohio

Project Title

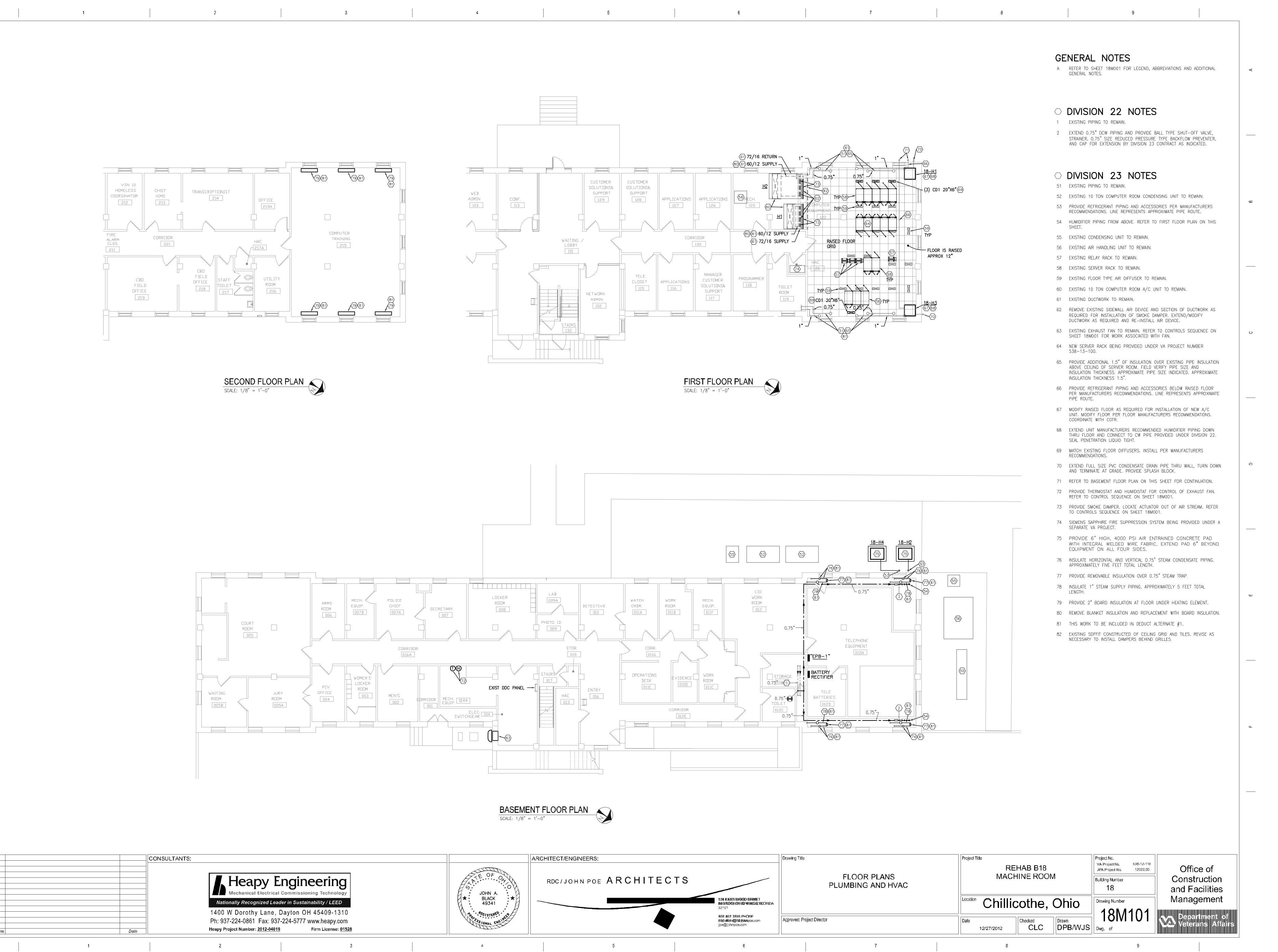
12022.00 JPA Project No. Building Number

CLC DPB/WJS Dwg. of

Project No. VA Project No.

> Construction and Facilities Management

Office of



PROJECT NO COULT OF THE APY ENGINEERING DAYTON/COLUMBUS, OHIO & INDIAMENTAL COMMISS

#### GENERAL NOTES

(10) CALENDAR DAYS.

RESPONSIBILITIES.

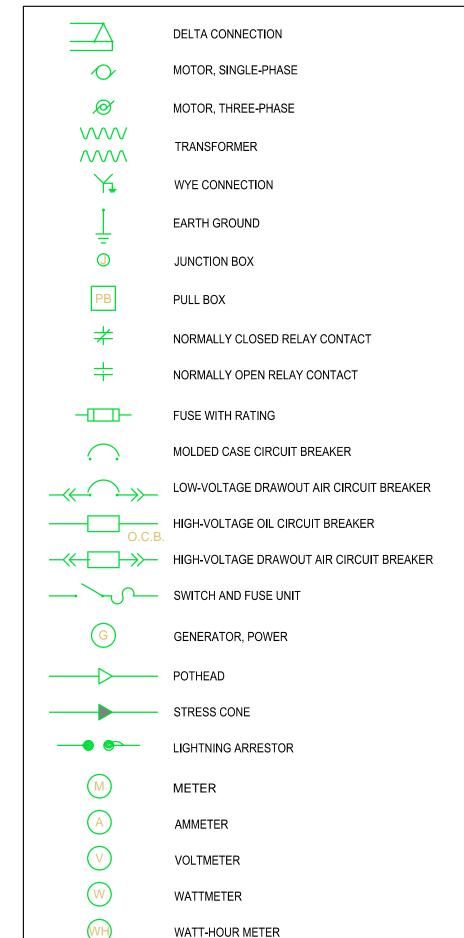
CODES AND STANDARDS.

- A CONTRACTOR SHALL NOT DISRUPT ANY EQUIPMENT OF THE ADVANCED METERING SYSTEM WITHOUT PROVIDING AN ACTION PLAN TO RESTORE ALL EQUIPMENT WITHIN TEN
- B ALL ELECTRICAL SPLICES FOR WIRE SIZES 6 AWG AND LARGER SHALL BE HYDRAULIC
- C THESE NOTES APPLY EQUALLY TO THE FULL SET OF DOCUMENTS.
- D SITE VISIT(S) SHALL BE AS OUTLINED IN PROJECT SPECIFICATIONS.
- ANY ASBESTOS WORK PERFORMED AS PART OF THIS PROJECT SHALL BE COMPLETED PRIOR TO STARTING ANY OTHER PROJECT SITE WORK.
- F THE NOTES AND SYMBOLS SET DOWN ON THESE DRAWINGS ARE FOR THE GUIDANCE OF ALL TRADES INVOLVED IN THE PROJECT AND MUST BE FOLLOWED TO EXECUTE THE WORK AS INTENDED.
- G THE CONTRACTORS SHALL REFER TO ALL SPECIFICATION SECTIONS, AND ELECTRICAL DRAWINGS FOR DETAILS OF BUILDING CONSTRUCTION TO ENSURE SPACE AND SATISFACTORY ARRANGEMENT FOR THEIR WORK. THE VARIOUS DRAWINGS COMPRISING THE SET ARE INTERDEPENDENT AND MUST BE USED JOINTLY AT ALL TIMES. EACH CONTRACTOR SHOULD REFER TO THE GENERAL REQUIREMENTS OF THE CONTRACT. THESE NOTES AND SYMBOLS SET DOWN ON THE DRAWINGS ARE FOR THE GUIDANCE OF ALL TRADES INVOLVED IN THE PROJECT AND MUST BE FOLLOWED TO EXECUTE THE WORK AS INTENDED. IF DISCREPANCIES OCCUR, CONTACT THE COTR THRU THE CONTRACTING OFFICER FOR CLARIFICATION BEFORE PROCEEDING.
- H IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. SEE SPECIFICATIONS FOR MORE SPECIFIC DETAILS ON
- ALL WORK MUST BE COORDINATED WITH THE CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) TO MAINTAIN OPERATION OF THE EXISTING FACILITY.
- FIELD VERIFY DIMENSIONAL INFORMATION PRIOR TO ORDERING EQUIPMENT. DO NOT
- K DIMENSIONS ARE TYPICALLY INDICATED TO THE FINISHED FACE OF WALLS OR PARTITIONS AND CENTER LINES OF COLUMNS UNLESS OTHERWISE INDICATED.
- L TITLES, CAPTIONS, HEADINGS, ETC. ARE INTENDED FOR GENERAL REFERENCE AND ARE
- NOT INTENDED TO LIMIT THE WORK REQUIRED IN ANY WAY. M EACH CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHERS. HE SHALL KEEP HIMSELF INFORMED OF THE PROGRESS AND DETAIL DEVELOPMENT OF THE

WORK OF OTHERS AND SHALL BE RESPONSIBLE FOR COORDINATING AND EXPEDITING HIS WORK WITH OTHERS SO THAT THE PROGRESS OF THE TOTAL WORK SHALL BE KEPT ON

- N ALL WORK SHALL BE PERFORMED IN COMPLETE COMPLIANCE WITH ALL GOVERNING
- O EXISTING CONDITIONS SHOWN HAVE BEEN BASED UPON AVAILABLE DRAWING INFORMATION AND MAY BE AT VARIANCE WITH ACTUAL WORK IN PLACE. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND FIELD VERIFY ALL CONDITIONS AFFECTING THE EXECUTION OF THE WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE WORK SHOWN ON THE CONTRACT DOCUMENTS WHICH MAY IMPACT THE PROGRESS OF THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER IN WRITING FOR RESOLUTION BEFORE PROCEEDING WITH
- P EACH CONTRACTOR AND/OR TRADE FITTING OR PLACING HIS WORK INTO OR ON THE WORK OF OTHERS DOES SO WITH THE UNDERSTANDING THAT THE INSTALLATION OF HIS WORK CONSTITUTES HIS ACCEPTANCE OF THE SUITABILITY OF THE WORK IN PLACE. IF THE WORK OF OTHERS IS NOT ACCEPTABLE, HE SHALL NOTIFY THE COTR AND SUCH WORK SHALL BE CORRECTED. ANY NEW WORK INSTALLED IN UNSUITABLE EXISTING WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR TRADE INSTALLING THE NEW WORK. NO CLAIMS FOR ADDITIONAL COMPENSATION FOR CORRECTING WORK INSTALLED IN UNSUITABLE EXISTING CONDITIONS WILL BE CONSIDERED.
- Q ANY STRUCTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION, OR PLUMBING INFORMATION INDICATED ON THE ARCHITECTURAL DRAWINGS IS FOR REFERENCE PURPOSES ONLY UNLESS OTHERWISE INDICATED.
- ABATEMENT, REMOVAL OR ENCAPSULATION OF EXISTING MATERIALS CONTAINING ASBESTOS IS NOT INCLUDED IN THE ELECTRICAL CONTRACT. IF REQUIRED, NECESSARY WORK OF THIS NATURE WILL BE ARRANGED BY THE VAMC TO BE DONE OUTSIDE OF THIS CONSTRUCTION PROJECT BY A COMPANY REGULARLY ENGAGED IN ASBESTOS
- S IF, IN THE PERFORMANCE OF THE ELECTRICAL WORK, MATERIALS ARE OBSERVED WHICH ARE SUSPECTED TO CONTAIN ASBESTOS, THE ELECTRICAL CONTRACTOR SHALL IMMEDIATELY INFORM THE COTR. WORK THAT WOULD EXPOSE WORKERS TO THE INHALATION OF ASBESTOS PARTICLES SHALL BE TERMINATED. WORK MAY BE RESUMED ONLY AFTER A DETERMINATION HAS BEEN MADE AND UNSAFE MATERIALS HAVE BEEN REMOVED OR ENCAPSULATED AND THE AREA DECLARED SAFE.
- PROPER PERSONNEL PROTECTION EQUIPMENT SHALL BE WORN PER OSHA AND VA REQUIREMENTS WITH VAMC COTR AND SAFETY OFFICER.
- U FIRESTOPPING ASSEMBLIES SHALL BE PROVIDED AT PENETRATIONS OF CONDUITS AND OTHER ELECTRICAL ITEMS THRU FIRE RATED FLOORS, FIRE RATED WALLS AND PARTITIONS AND FIRE RATED SHAFT WALLS AND PARTITIONS. ALL PENETRATIONS THROUGH 0-HOUR RATED WALLS SHALL BE CAULKED SMOKE-TIGHT. REFER TO SPECIFICATION SECTION 07 84 00.
- REMOVE EXISTING ELECTRICAL SYSTEMS IN BUILDINGS WHICH ARE MADE SUPERFLUOUS WHEN NEW SYSTEMS ARE INSTALLED INCLUDING ALL ASSOCIATED WIRING AND DEVICES. PROVIDE BLANK STAINLESS STEEL COVERPLATES PROPERLY SIZED FOR EXISTING BACKBOX AND WALL OPENING FOR ALL RECESSED WALL MOUNTED DEVICES REMOVED. ALL ABANDON RACEWAY, CONDUIT AND BOXES SHALL BE REMOVED.
- W EMCS/EPSS SYSTEM SHALL BE MANUFACTURED BY SCHNEIDER ELECTRIC. CONTACT MR. DALLIS MARSH AT (419) 902-1799.
- X REFER TO SPECIFICATION SECTION 01 00 00 GENERAL REQUIREMENTS FOR STATEMENT OF BID ITEM(S) AND DEDUCTIVE ALTERNATES.

#### **ELECTRICAL SYMBOLS - DIAGRAM**



# ELECTRICAL SYMBOLS - POWER PLAN

	AL STIVIDOLS - I OWER I LAIN
	DISCONNECT SWITCH, FUSED
	DISCONNECT SWITCH, UNFUSED
$\square$	STARTER, COMBINATION WITH DISCONNECT SWITCH
	STARTER OR MOTOR CONTROLLER
VFD	VARIABLE FREQUENCY DRIVE
$\Diamond$	MOTOR
T	TRANSFORMER, PLAN
X	WYE CONNECTION
<u>_</u>	EARTH GROUND
J	JUNCTION BOX
DP#	DISTRIBUTION PANEL
	PANELBOARD CABINET, FLUSH MOUNTED

PANELBOARD CABINET, SURFACE MOUNTED

#### FI FCTRICAL SYMBOLS

ELECTRICAL	SYMBOLS
3	DASH SYMBOL INDICATES PARTICULAR OUTLET OR DEVICE TO BE REMOVED AND CIRCUITRY MADE CONTINUOUS WHERE REQUIRED.
Ф \$	EXISTING OUTLET OR DEVICE TO REMAIN. MAINTAIN EXISTING CIRCUITING.
•	ELECTRICAL CONNECTION.
φ	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE).
Φ	20A-125V SINGLE RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE).
	SPECIAL PURPOSE RECEPTACLE. REFER TO NOTE ON PLAN.
<del>↑</del>	20A-125V DOUBLE DUPLEX RECEPTACLE. NEMA 5-20R, (18" MH UNLESS NOTED OTHERWISE) TWO GANG ASSEMBLY.
Φ	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R WITH BOTTOM OUTLET CONTROLLED BY WALL SWITCH. (18" MH UNLESS
Ψ	NOTED OTHERWISE).  20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (46" MH UNLESS NOTED OTHERWISE).
$\Phi^{GF}$	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED
$\Phi^{WP}$	OTHERWISE).  20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R (HORIZONTAL 18" MH UNLESS NOTED OTHERWISE) WIT
$\Phi^{WP/GF}$	TAYMAC #10310 STANDARD COVER, VERTICAL MOUNT.  20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH
Ψ Φ <sup>EM</sup>	UNLESS NOTED OTHERWISE), WITH TAYMAC #20310 STANDARD COVER, VERTICAL MOUNT.
Т	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, ON EMERGENCY POWER (18" MH UNLESS NOTED OTHERWISE).
Φ'	20A-125V POWERLOCK GROUNDING TYPE RECEPTACLE, HOSPITAL USE (66" MH UNLESS NOTED OTHERWISE).  20A-125V DUPLEX PEDESTAL TYPE FLOOR RECEPTACLE, NEMA 5-20R, IN HUBBELL BA-2527 FLOOR BOX WITH SA-2525
	COVERPLATE AND SC-3091 HOUSING. PROVIDE CARPET FLANGE WHERE REQUIRED.
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, IN HUBBELL BA-2527 FLUSH FLOOR BOX WITH ROUND SA-3925 COVERPLATE. PROVIDE CARPET FLANGE WHERE REQUIRED.
<u> </u>	JUNCTION BOX.
	MULTI-OUTLET RECEPTACLES ASSEMBLY, NEMA 5-15R (SINGLE OUTLETS ON 18" CENTERS) (46" MH UNLESS NOTED OTHERWISE).
⊢©	CLOCK HANGER OUTLET, SINGLE NEMA 5-15R RECESSED IN COVER PLATE (84" MH UNLESS NOTED OTHERWISE).
\$	SINGLE POLE SWITCH (46" MH UNLESS NOTED OTHERWISE).
\$ \$	TWO POLE WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
3 <b>\$</b>	THREE-WAY WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
4 \$	FOUR-WAY WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
P \$	SWITCH WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" MH UNLESS NOTED OTHERWISE).
K \$	KEY OPERATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
L \$	LOW-VOLTAGE MOMENTARY WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
DM \$	LIGHTING DIMMER SWITCH (46" MH UNLESS NOTED OTHERWISE) 1000 WATTS UNLESS OTHERWISE INDICATED.
R <b>\$</b>	SWITCH WITH RECEPTACLE (46" MH UNLESS NOTED OTHERWISE) STANDARD TWO-GANG ASSEMBLY OF SWITCH AND RECEPTACLE.
M \$	FLUSH FRACTIONAL HORSEPOWER MOTOR STARTER WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" MH UNLES NOTED OTHERWISE).
H <b>\$</b>	HP RATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	ELECTRICAL PANEL OR SWITCHBOARD PER DRAWINGS.
P/B	PULL BOX.
마	DISCONNECT SWITCH.
$oxed{\boxtimes}$	MOTOR STARTER.
$\boxtimes$	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH.
<i>∞</i>	ELECTRIC MOTOR.
<b>⊘</b> UH	UNIT HEATER.
→ OH ✓/FC	FAN COIL.
AC AC	AIR CONDITIONER.
AC CU	CONDENSING UNIT.
~ CU V	UNIT VENTILATOR.
	CORD REEL.
 	POWER POLE.
	LINE VOLTAGE THERMOSTAT.
H <sub>DH</sub>	DUCT HEATER.
H <sub>EB</sub>	ELECTRIC BASEBOARD HEATER.  INTERCOM SYSTEM DESK MOUNTED MASTER CONTROL STATION. SUBSCRIPT "W" INDICATES WALL MOUNT (46" MH
<u>M</u>	UNLESS NOTED OTHERWISE).
	INTERCOM STAFF STATION (46" MH UNLESS NOTED OTHERWISE).
<u> </u>	INTERCOM HORN TYPE SPEAKER (84" MH UNLESS NOTED OTHERWISE).
<u>s</u>	INTERCOM SPEAKER FLUSH MOUNT IN CEILING.
<u> </u>	CEILING MOLINTED OCCUPANCY SENSOR

# FIRE ALARM SYMBOLS

FACP	FIRE ALARM CONTROL PANEL.
15 <b>EA</b>	FIRE ALARM SPEAKER & SIGNAL LIGHT (80" AFF), (# WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 75 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15 <b>E</b> X	FIRE ALARM BELL & SIGNAL LIGHT (80" AFF), (# WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 75 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15 F	FIRE ALARM CHIME & SIGNAL LIGHT (80" AFF), (# WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NO SHOWN, THE STROBE SHALL BE RATED 75 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
<sup>15</sup> <b>□</b>	FIRE ALARM HORN & SIGNAL LIGHT (80" AFF), (# WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NO SHOWN, THE STROBE SHALL BE RATED 75 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
<sup>15</sup>	FIRE ALARM SIGNALING LIGHT (80" AFF), (# WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 75 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
S	CEILING MOUNTED FIRE ALARM SPEAKER.
Ēκ	FIRE ALARM MANUAL STATION (46" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "K" INDICATES KEY OPERATED.
\$	CEILING MOUNTED SMOKE DETECTOR.
Ĥ	CEILING MOUNTED HEAT DETECTOR.
S S/R	DUCT MOUNTED SMOKE DETECTOR. SUBSCRIPT "S" INDICATES SUPPLY. SUBSCRIPT "R" INDICATES RETURN.
H S/R	DUCT MOUNTED HEAT DETECTOR. SUBSCRIPT "S" INDICATES SUPPLY. SUBSCRIPT "R" INDICATES RETURN.
C	ELECTRIC RELEASE DOOR CLOSER.
D	ELECTRO-MAGNETIC DOOR HOLDER.
FS	WATER FLOW SWITCH.
V	VALVE SUPERVISORY SWITCH.
W R	DUCT MOUNTED DETECTOR REMOTE TEST STATION AND ALARM INDICATOR LIGHT. SUBSCRIPT "W" INDICATES WALL MOUNTED.
SD	SMOKE DAMPER.
FT	FIRE FIGHTER'S TELEPHONE (60" MH UNLESS NOTED OTHERWISE).
PS	PRESSURE SWITCH.
AM C/I	ADDRESSABLE MODULE. SUBSCRIPT "I" INDICATES INPUT. SUBSCRIPT "C" INDICATES CONTROL.
PIV	POST INDICATOR VALVE.
K	KNOX BOX.

# **LUMINAIRE SYMBOLS**

<b>9</b> O	LIGHTING FIXTURE. CAPITAL LETTER DENOTES FIXTURE TYPE, LOWER CASE LETTER DENOTES SWITCHING ARRANGEMENT.
90	LIGHTING FIXTURE ON NIGHT LIGHT OR EMERGENCY CIRCUIT.
$\overrightarrow{\mathbf{z}}$	EXIT LIGHTING FIXTURE, ARROWS AS INDICATED.

#### **GENERAL FLOOR PLAN NOTES**

B E2	DETAIL: B = DETAIL DESIGNATION E2 = SHEET WHERE DETAIL IS LOCATED
1 E2	SECTION: 1 = SECTION DESIGNATION E2 = SHEET WHERE DETAIL IS LOCATED
3	PLAN NOTE. APPLIES ONLY TO THE SHEET WHICH IT IS SHOWN.
3	DETAIL NOTE. APPLIES ONLY TO THE ASSOCIATED DETAIL.
	CABLE TRAY, 12" x 4" DEEP UNLESS NOTED OTHERWISE.
	WIRE & CONDUIT IN WALL OR ABOVE CEILING.
C========	WIRE & CONDUIT IN OR BELOW SLAB OR GRADE.
(======================================	CONDUIT TO BE REMOVED.
E	EXISTING WIRE & CONDUIT TO REMAIN.
DAT —	CONDUIT FOR DATA CIRCUITRY.
EM ——	WIRE & CONDUIT FOR EMERGENCY CIRCUITRY.
FA	WIRE & CONDUIT FOR FIRE ALARM CIRCUITRY.
	WIRE & CONDUIT FOR INTERCOM SYSTEM CIRCUITRY.
NC NC	WIRE & CONDUIT FOR NURSE CALL CIRCUITRY.
NL NL	WIRE & CONDUIT FOR NIGHT LIGHT CIRCUITRY.
PHO	CONDUIT FOR PHONE CIRCUITRY.
s	WIRE & CONDUIT FOR SOUND SYSTEM CIRCUITRY.
sec —	WIRE & CONDUIT FOR SECURITY SYSTEM CIRCUITRY.
TV —	WIRE & CONDUIT FOR TELEVISION SYSTEM CIRCUITRY.
w	WIRE RUN IN SURFACE WIREWAY.
CM	CABLE MANAGEMENT SYSTEM PATHWAY.
X - 1,2	EACH ARROWHEAD REPRESENTS ONE COMPLETE CIRCUIT; "X" DENOTES PANEL NAME; NUMBER(S) DENOTES CIRCUIT(S).

# **ABBREVIATIONS**

AAP	- AREA ALARM PANEL - MEDICAL GAS	ID	- INSIDE DIAMETER
CC	- ACCESS	IN	- INCHES
ADJ AF	- ADJUSTABLE - ARC FAULT CIRCUIT INTERUPTER	KEC	- KITCHEN EQUIPMENT CONTRACTOR
AFCI	- ARC FAULT CIRCUIT INTERUPTER	0	MITCHEST EXCENTION OF CITY
AFF	- ABOVE FINISHED FLOOR TO BOTTOM OF ITEM	L	- LENGTH
AFG ALT	- ABOVE FINISHED GRADE TO BOTTOM OF ITEM - ALTERNATE	LBS	- POUNDS
AP	- ACCESS PANEL	MAP	- MASTER ALARM PANEL (MEDICAL GAS)
	( - APPROXIMATE	MAX	- MAXIMUM
ARCH	- ARCHITECT OR ARCHITECTURAL	MEZZ	- MEZZANINE
ASSY ATS	- ASSEMBLY - AUTOMATIC TRANSFER SWITCH	MFR MH	- MANUFACTURER - MANHOLE OR MOUNTING HEIGHT TO
,			CENTER LINE OF ITEM
BLDG	- BUILDING	MIN	- MINIMUM OR MINUTE
BOE BOT	- BOTTOM OF EQUIPMENT - BOTTOM	MISC MTD	- MISCELLANEOUS - MOUNTED
BTWN	- BETWEEN	MTG	- MOUNTING
CFCI CKT	- CONTRACTOR FURNISHED CONTRACTOR INSTALLED - CIRCUIT	NIC NOM	- NOT IN CONTRACT - NOMINAL
CLG	- CEILING	NTS	- NOT TO SCALE
CMU	- CONCRETE MASONRY UNIT		1101 10 00,122
CONN	- CONNECT OR CONNECTION	OD	- OUTSIDE DIAMETER
CONTR COTR	- CONTRACTOR - CONTRACTING OFFICER TECHNICAL REPRESENTATIVE	OFCI OFOI	- OWNER FURNISHED CONTRACTOR INSTALLED - OWNER FURNISHED OWNER INSTALLED
CTR	- CENTER	01 01	- OWNER TORRIONED OWNER INOTALLED
_		PC	- PLUMBING CONTRACTOR (DIVISION 22)
D DET	- DEPTH - DETAIL	PLBG PB	- PLUMBING - PULL BOX
DIA	- DIAMETER	ГБ	- FOLL BOX
DIM	- DIMENSION	RAD	- RADIUS
DIV	- DIVISION	REC	- RECESSED
DN DWG	- DOWN - DRAWING	REQD RI	- REQUIRED - ROUGH-IN
50			1100011111
EA	- EACH	S	- SURFACE MOUNTED
EC EJ	- ELECTRICAL CONTRACTOR (DIVISION 26) - EXPANSION JOINT	SC SCH	- SECURITY CONTRACTOR - SCHEDULE
ELEC	- ELECTRICAL	SHT	- SHEET
ELEV	- ELEVATION OR ELEVATOR	SB	- SPLICE BOX
EM EQ	- EMERGENCY - EQUAL	SPEC SQ	- SPECIFICATIONS - SQUARE
EQS	- EQUIPMENT SUPPLIER	SS	- STAINLESS STEEL
EQUIP	- EQUIPMENT	STD	- STANDARD
ETR	- EXISTING TO REMAIN	STRUC	- STRUCTURAL OR STRUCTURE
EX EXP	- EXISTING - EXPANSION	SUC	- SITE UTILITY CONTRACTOR
EXT	- EXTERIOR	TC	- TECHNOLOGY CONTRACTOR
<b>505</b>	FIDE CONTROL FOLUDIATION	TEMP	- TEMPERATURE
FCE FF	- FIRE CONTROL EQUIPMENT - FINISHED FLOOR ELEVATION	TOE TYP	- TOP OF EQUIPMENT - TYPICAL
FLR	- FLOOR		THOAL
FSC	- FIRE SUPPRESSION CONTRACTOR (DIVISION 21)	UNO	- UNLESS NOTED OTHERWISE
FT FTG	- FEET - FOOTING	VFD	- VARIABLE FREQUENCY DRIVE
FIG	- FOOTING	VOL	- VOLUME
GC	- GENERAL CONTRACTOR		
GF CFCI	- GROUND FAULT CIRCUIT INTERRUPTER	W/	- WITH
GFCI	- GROUND FAULT CIRCUIT INTERRUPTER OR GOVERNMENT FURNISHED CONTRACTOR INSTALLED	W/0 WP	- WITHOUT - WEATHERPROOF
GFFT	- GROUND FAULT FEED THRU		
110	LINAR CONTRACTOR (BILITORICS)	ZVC	- ZONE VALVE CABINET
HC HP	- HVAC CONTRACTOR (DIVISION 23) - HORSE POWER OR HIGH POINT		
HVAC	- HEATING, VENTILATING, AND AIR CONDITIONING		

ELECTRICAL GENERAL NOTES (APPLIES TO ALL ELECTRICAL DRAWINGS)

- A. THESE NOTES APPLY EQUALLY TO THE FULL SET OF DOCUMENTS.

GENERAL REQUIREMENTS SECTION 01 00 00.

- B. SITE VISIT(S) SHALL BE AS OUTLINED IN PROJECT SPECIFICATIONS.
- C. INCLUDE ALL WORK NECESSARY TO ACCOMMODATE PHASING. REFER TO ARCHITECTURAL DRAWINGS AND
- O. ALL WORK MUST BE COORDINATED WITH THE CONTRACTING OFFICER AND COTR (FOR ALL OTHERS) TO
- MAINTAIN OPERATION OF THE EXISTING FACILITY.
- .. ALL WORK SHALL BE PERFORMED IN COMPLETE COMPLIANCE WITH ALL CURRENT GOVERNING CODES AND EXISTING CONDITIONS SHOWN HAVE BEEN BASED UPON AVAILABLE DRAWING INFORMATION, AND MAY BE AT
- VARIANCE WITH ACTUAL WORK IN PLACE. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND FIELD VERIFY ALL CONDITIONS AFFECTING THE EXECUTION OF THE WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE WORK SHOWN ON THE CONTRACT DOCUMENTS WHICH MAY IMPACT THE PROGRESS OF THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER IN WRITING FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- 3. ALL PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES SHALL BE PROTECTED AND/OR FIRE-STOPPED AS REQUIRED TO MAINTAIN FIRE-RATINGS INDICATED. COORDINATE WITH ALL TRADES TO ENSURE FIRE-RATED PENETRATION REQUIREMENTS AND DETAILS ARE MET.
- I. ANNULAR SPACE OF ALL PIPE, CONDUIT, DUCT & OTHER SIMILAR PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRESTOPPED. IN ADDITION, PENETRATIONS THROUGH 0-HOUR RATED WALLS & FLOORS SHALL BE FIRESTOPPED TO RETARD PASSAGE OF FIRE & SMOKE.
- ALL CONDUITS IN FINISHED ROOMS, CORRIDORS, ETC. SHALL BE CONCEALED IN A WALL OR ABOVE CEILING. ACCESS PANELS IN NON ACCESSIBLE CEILINGS SHALL BE PROVIDED FOR ALL ELECTRICAL ITEMS REQUIRING
- K. ALL CUTTING AND PATCHING REQUIRED FOR THIS PROJECT SHALL BE INCLUDED IN THE CONTRACT. REFINISH ANY SURFACE DISTURBED UNDER THIS WORK TO MATCH EXISTING.
- ANY REMOVED EQUIPMENT SHALL BE TURNED OVER TO THE VA. ITEMS NOT DESIRED BY THE VA SHALL BE
- REMOVED FROM THE PREMISES AND DISPOSED OF PROPERLY BY THE CONTRACTOR. M. THE CONTRACT DRAWINGS ARE NOT INTENDED TO SHOW EVERY VERTICAL OR HORIZONTAL OFFSET WHICH MAY BE NECESSARY TO COMPLETE THE SYSTEMS. COORDINATE WORK IN ADVANCE WITH ALL OTHER TRADES
- N. ALL ABANDONED EXTRANEOUS CONDUITS, WIRING, DEVICES, ETC. SHALL BE REMOVED.

AND REPORT IMMEDIATELY AND DIFFICULTIES WHICH CAN BE ANTICIPATED.

. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION CONCERNING MECHANICAL EQUIPMENT THAT REQUIRES ELECTRICAL CONNECTIONS.

NOTE: ALL SYMBOLS AND ABBREVIATIONS ARE SUBJECT TO MODIFICATIONS ON OTHER DRAWINGS.

ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT **NECESSARILY BE USED ON THIS PROJECT.** 

# DRAWING INDEX

SYMBOLS **DETAILS** 

PARTIAL PRIMARY ELECTRIC SINGLE LINE

PARTIAL BUILDING SECONDARY ELECTRIC SINGLE LINE 18ES101 ELECTRICAL SITE PLAN - REMOVALS & NEW WORK

18ED101 BASEMENT FLOOR PLAN - REMOVALS

18EP101 BASEMENT FLOOR PLAN - NEW WORK

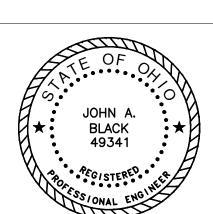
18EL101 FIRST AND SECOND FLOOR PLANS - LIGHTING & POWER

Heapy Engineering Nationally Recognized Leader in Sustainability / LEED 1400 W Dorothy Lane, Dayton OH 45409-1310 Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com

Firm License: 01528

Heapy Project Number: 2012-04019

CONSULTANTS:



CEILING MOUNTED OCCUPANCY SENSOR



**REHAB B18** SYMBOLS MACHINE ROOM

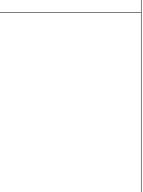
Project Title

Chillicothe, Ohio

JPA Project No. Building Number

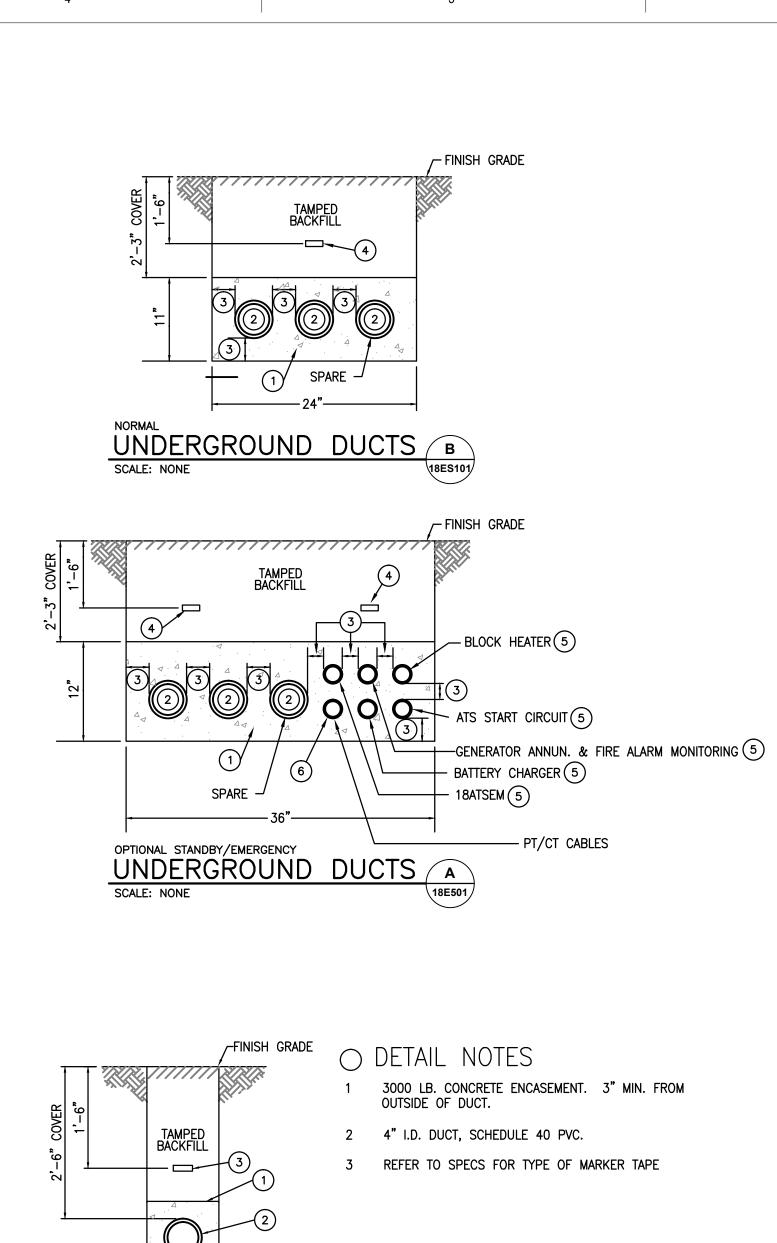
VA Project No.

Office of Construction and Facilities Management



Approved: Project Director

MSG



O DETAIL NOTES

SPACERS 6'-0" O.C.

5. 1" I.D. DUCT, SCHEDULE 40 PVC.

6. 1.5" DUCT, SCHEDULE 40 PVC.

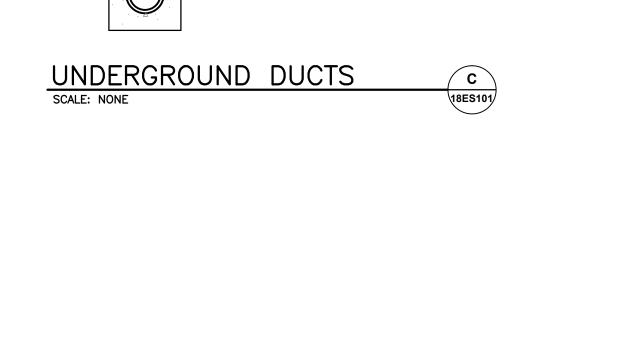
1. 3000 LB. CONCRETE ENCASEMENT.

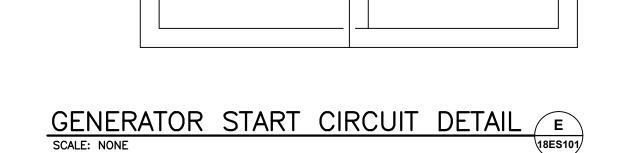
2. 4" I.D. DUCTS, SCHEDULE 40 PVC.

3. MIN. 3" SPACING BETWEEN CONDUITS AND MIN.

4. REFER TO SPECS FOR TYPE OF MARKER TAPE

3" ENCASEMENT (TYPICAL). PROVIDE CONDUIT





JOHN A. BLACK 49341



- 1. MATERIAL AND COMPACTION REQUIREMENTS FOR PIPE BEDDING/SHADING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE APPLICABLE UTILITY PIPE.
- 2. TRENCH BACKFILL SHALL COMMENCE 1 FOOT [305mm] ABOVE THE TOP OF PIPE.
- 3. BACKFILL COMPACTION REQUIREMENTS SHALL COMPLY TO VA SPECIFICATIONS.
- 4. THE 1 FOOT [305mm] TRENCH "SHOULDER" AREAS SHALL BE DELETED FOR TYPE 2 TRENCHES.
- 5. PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE VA SPECIFICATION REQUIREMENTS.
- 6. ASPHALTIC TACK MATERIAL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF VA SPECIFICATION REQUIREMENTS.

\_\_\_\_

- ASPHALTIC CONCRETE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF VA SPECIFICATION REQUIREMENTS.
- 8. LOAD TRANSFER DOWELS FOR JOINTS TRANSVERSE TO THE ROADWAY CENTERLINE SHALL
- BE SMOOTH STEEL DOWELS IN ACCORDANCE WITH THE REQUIREMENTS OF VA SPECIFICATION REQUIREMENTS. DOWELS SHALL BE SIZED AND SPACED AS FOLLOWS:
- 12" [305mm] 18" [455mm] [150mm] [180mm] 15" [380mm] 15" [380mm] 15" [380mm] 12" [305mm] [180mm] 15" [380mm] 12" [305mm] 10" [180mm]
- 9. DEFORMED TIE BARS SHALL BE USED IN TRENCH PATCHES LONGITUDINAL TO THE ROADWAY CENTERLINE WHEN THE TRENCH LENGTH IS GREATER THAN 50 FEET [15240mm]. TIE BARS SHALL BE 24 INCHES [610mm] LONG. DEFORMED #4 [No. 13] BARS FOR PCCP LESS THAN 8 INCHES [205mm] THICK AND #5 [No. 16] BARS IF 8 INCHES [205mm] THICK OR MORE. TIE BARS SHALL BE PLACED 30 INCHES [760mm] CENTER-TO-CENTER.
- 10. HOLES SHALL BE DRILLED 1 FOOT [305mm] INTO THE EXISTING SLAB FOR TIE BARS AND 7 INCHES [180mm] FOR DOWELS. HOLES SHALL BE OF A DIAMETER SUFFICIENT TO ACCOMMODATE THE TIE BAR ANCHORAGE OR DOWEL CAP. TIE BARS SHALL BE ANCHORED WITH AN APPROVED HIGH VISCOSITY EPOXY.
- 11. IF THE CONCRETE SLAB REMAINING NEXT TO A LONGITUDINAL OR TRANSVERSE JOINT IS LESS THAN 6 FEET [1829mm] AT ITS NARROWEST WIDTH, REMOVE AND REPLACE THE EXISTING CONCRETE TO THE JOINT.

ASPHALT REPAIR DETAIL D

SAW CUT EXISTING. ASPHALT FULL

DEPTH BOTH SIDES -

ABC 100% MIN.

COMPACTION

TŔEŃCH /

/BACKFILL<del>/</del>

[1219mm]

2" [50mm] MINIMUM OR THICKNESS OF EXISTING PAVEMENT

BITUMINOUS SURFACE TREATMENT (CHIPSEAL) REQUIRED ONLY FOR

4" [100mm] MINIMUM ABC OR THICKNESS OF EXISTING GRANULAR

REFER TO VA STANDARD DETAIL 32 12 16-04 "UTILITY TRENCH

PAVEMENT PATCH NOTES" FOR ADDITIONAL INFORMATION.

LONGITUDINAL TRENCHES WITH WIDTHS GREATER THAN 6' [1829mm].

BASE COURSE MATERIALS (E.G. ABC & SELECT MATERIAL) WHICHEVER

TACK COAT (TYP.) -

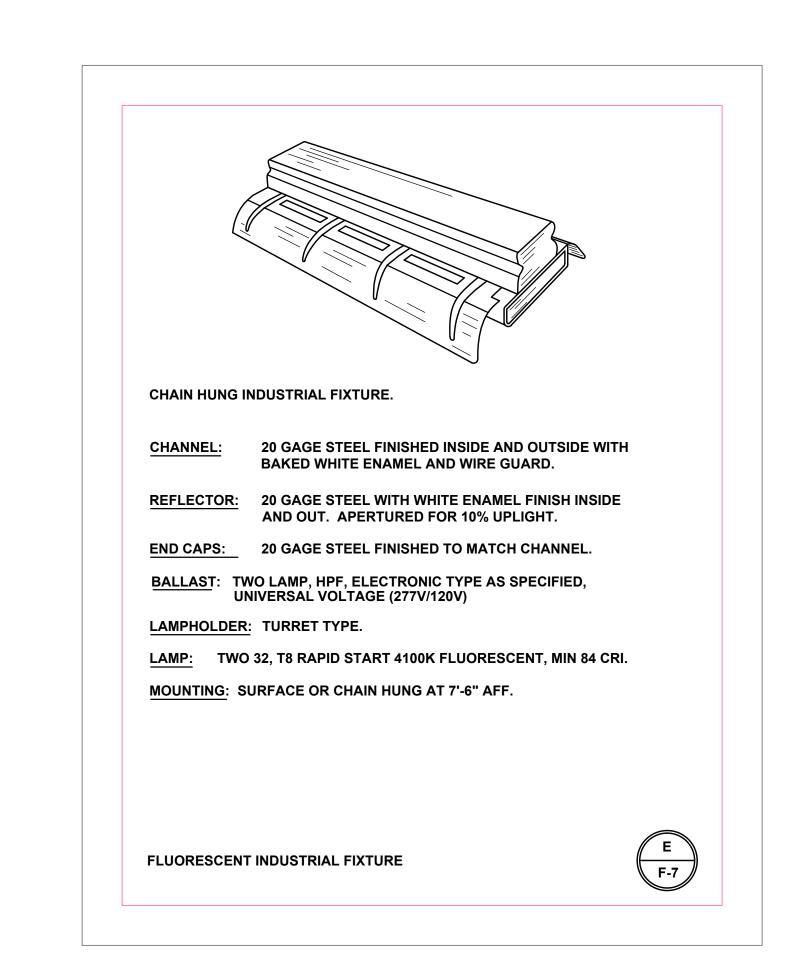
[305mm]

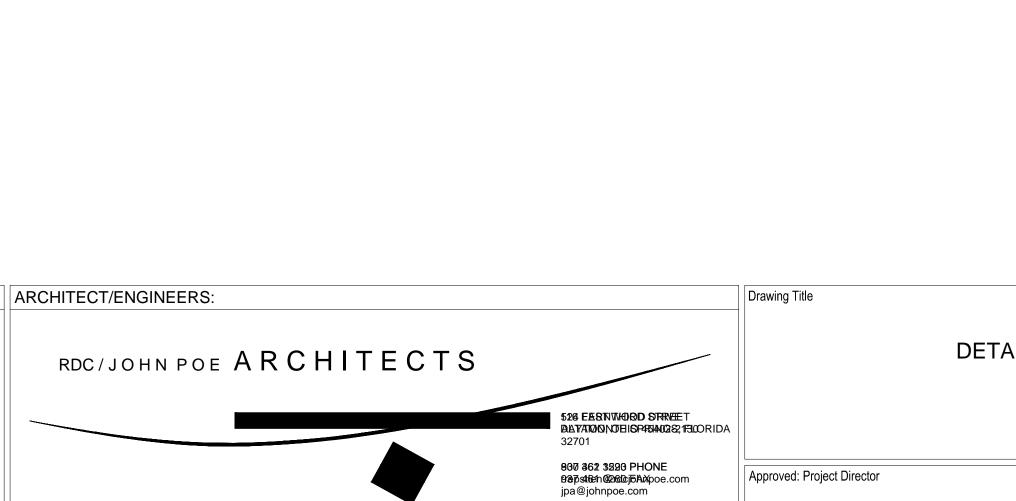
WHICHEVER IS GREATER.

IS GREATER.

**EXISTING** 

PAVEMENT —





REHAB B18 DETAILS MACHINE ROOM Chillicothe, Ohio Approved: Project Director MSG

Project Title

Project No.

VA Project No. JPA Project No. Building Number

Construction and Facilities Management

Office of

CONSULTANTS:

Heapy Engineering

Firm License: 01528

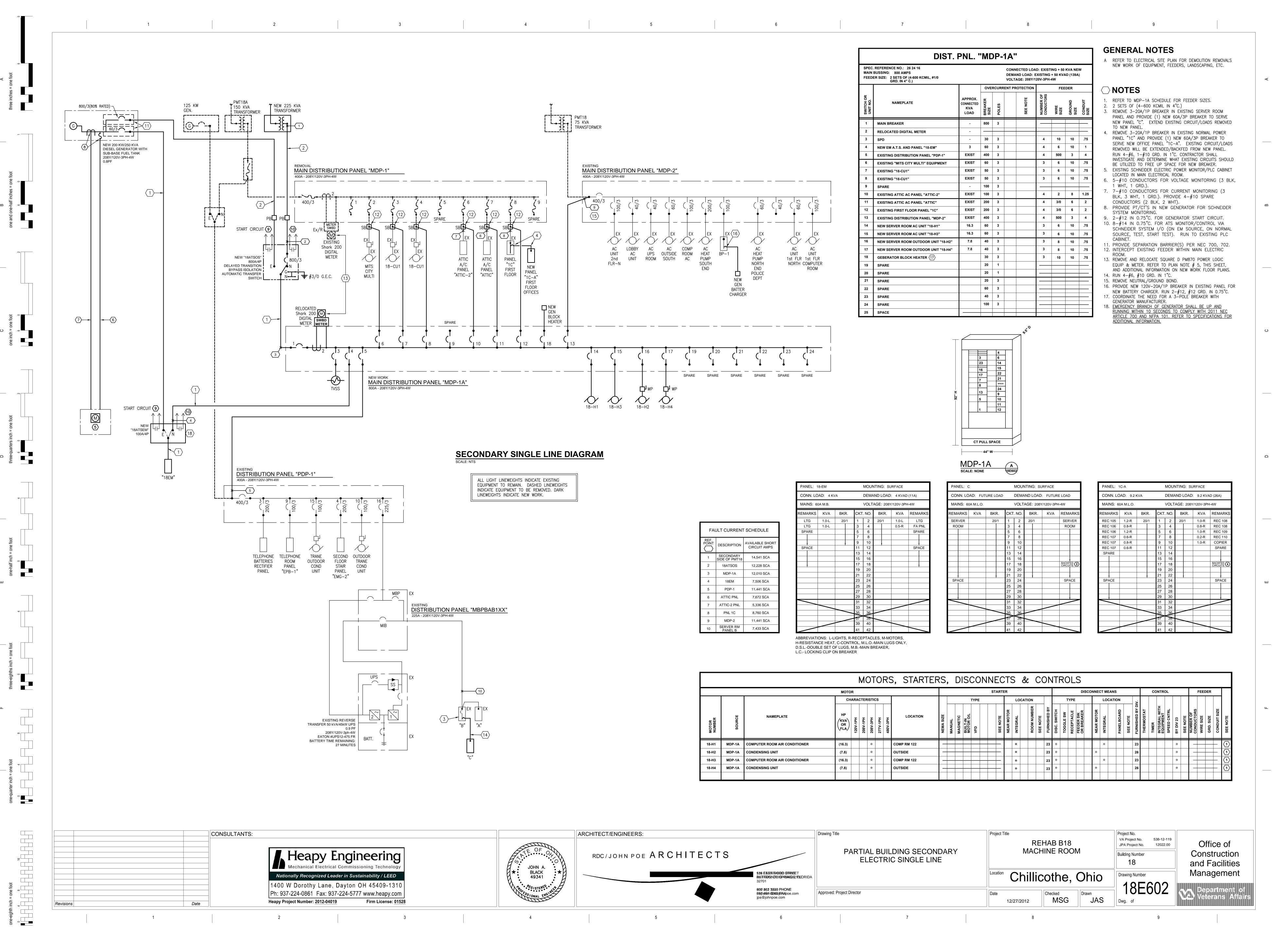
Nationally Recognized Leader in Sustainability / LEED

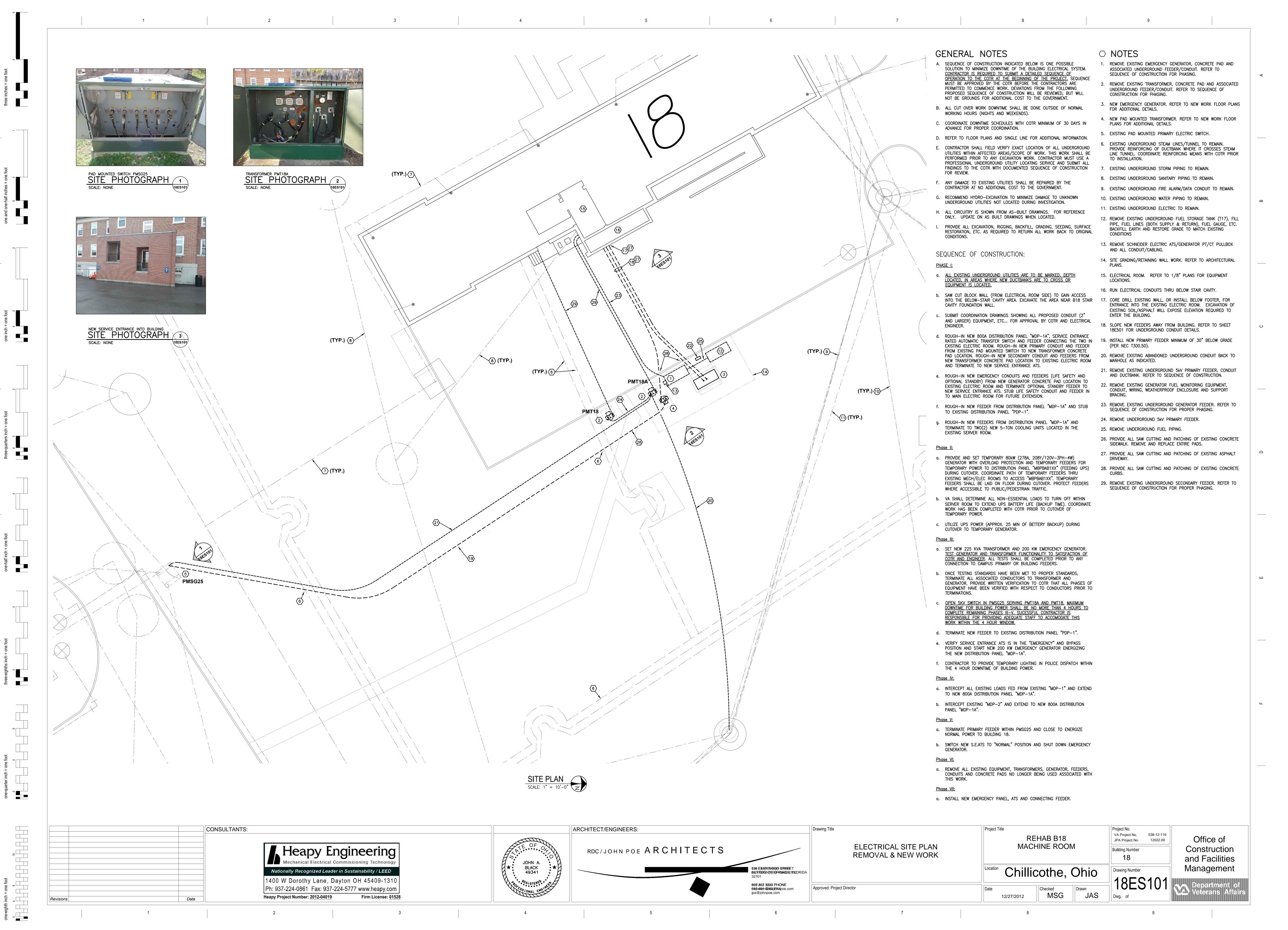
1400 W Dorothy Lane, Dayton OH 45409-1310

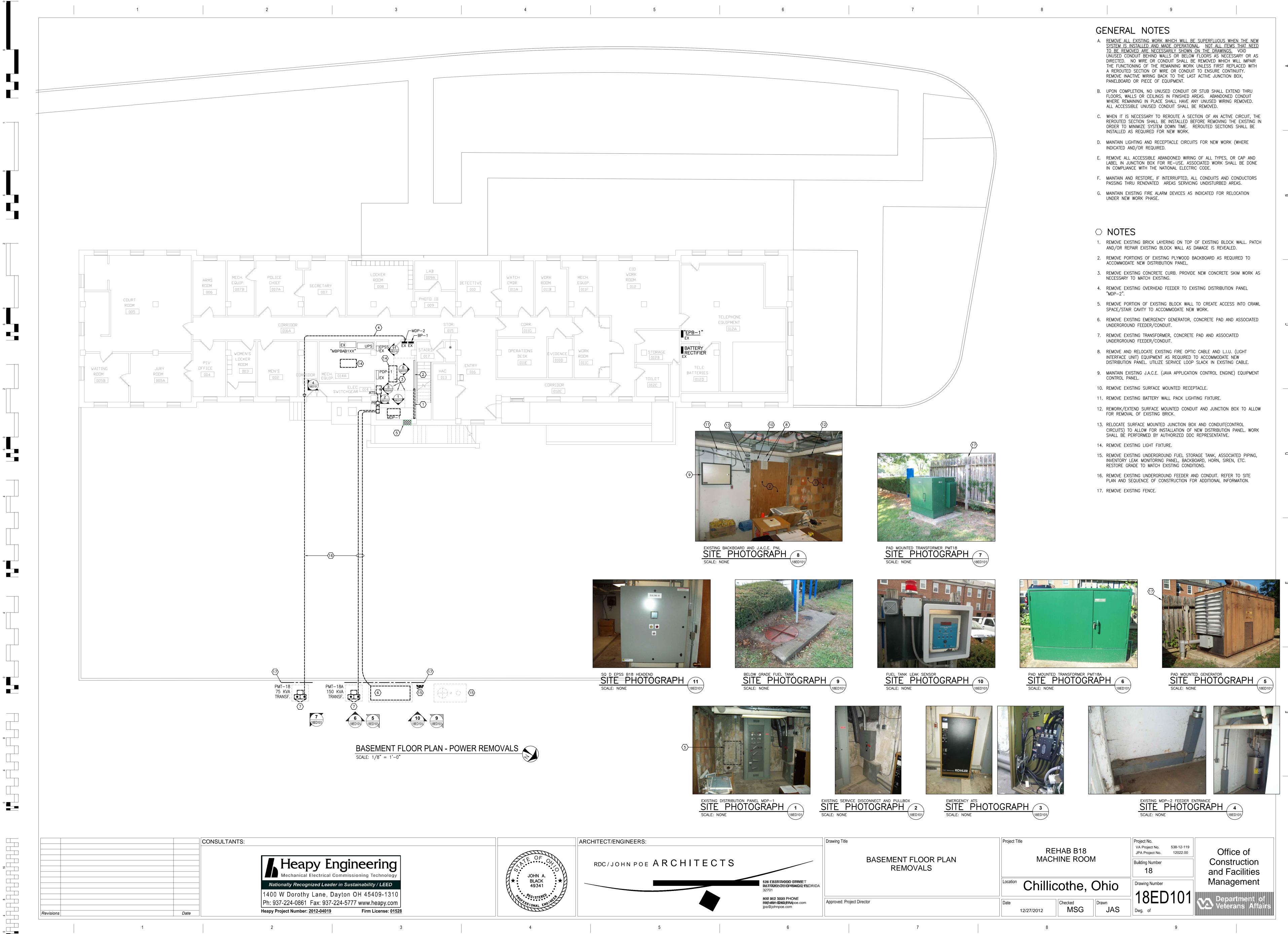
Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com

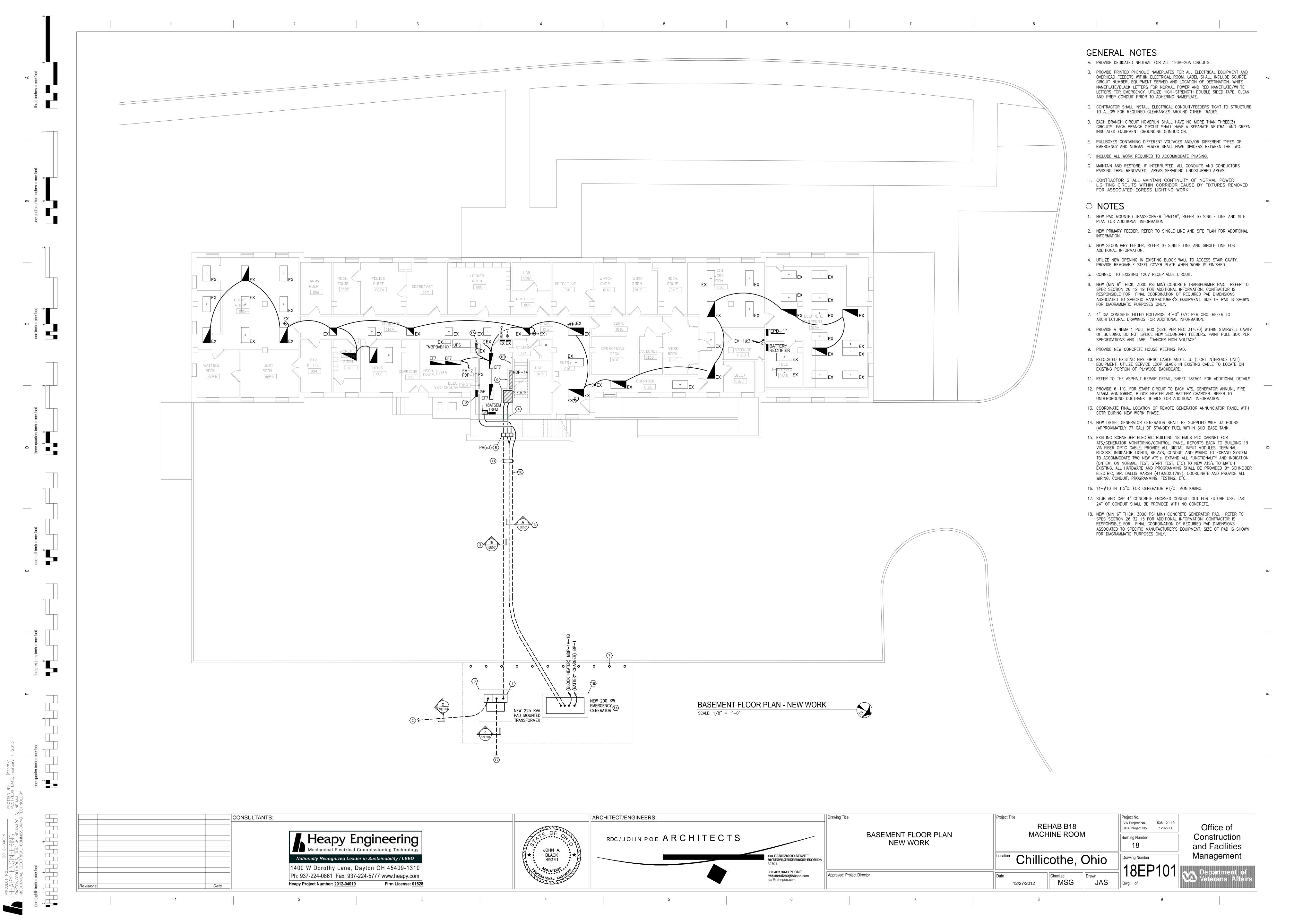
Heapy Project Number: 2012-04019

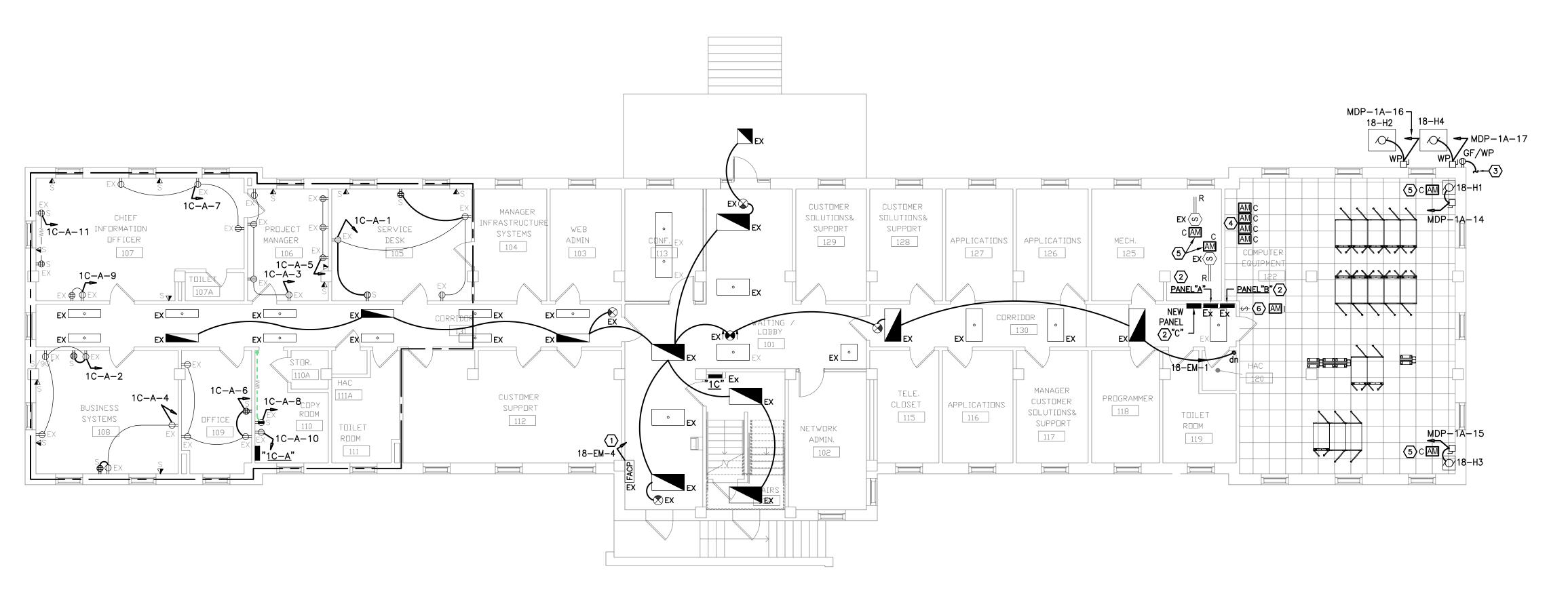
MSG



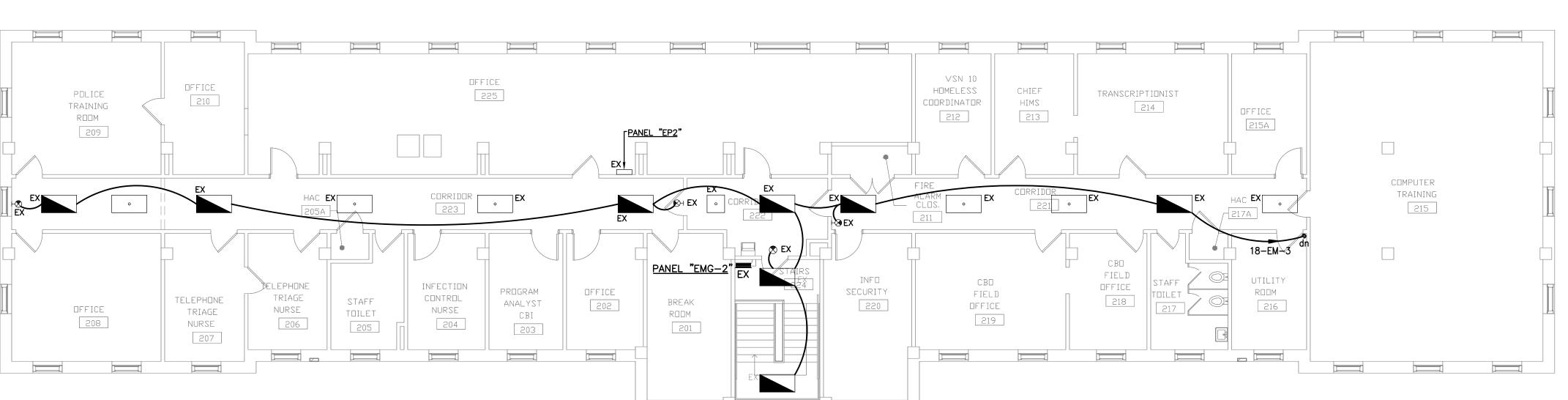








FIRST FLOOR PLAN - NEW WORK - LIGHTING SCALE: 1/8" = 1'-0"



SECOND FLOOR PLAN - NEW WORK - LIGHTING SCALE: 1/8" = 1'-0"

# GENERAL NOTES

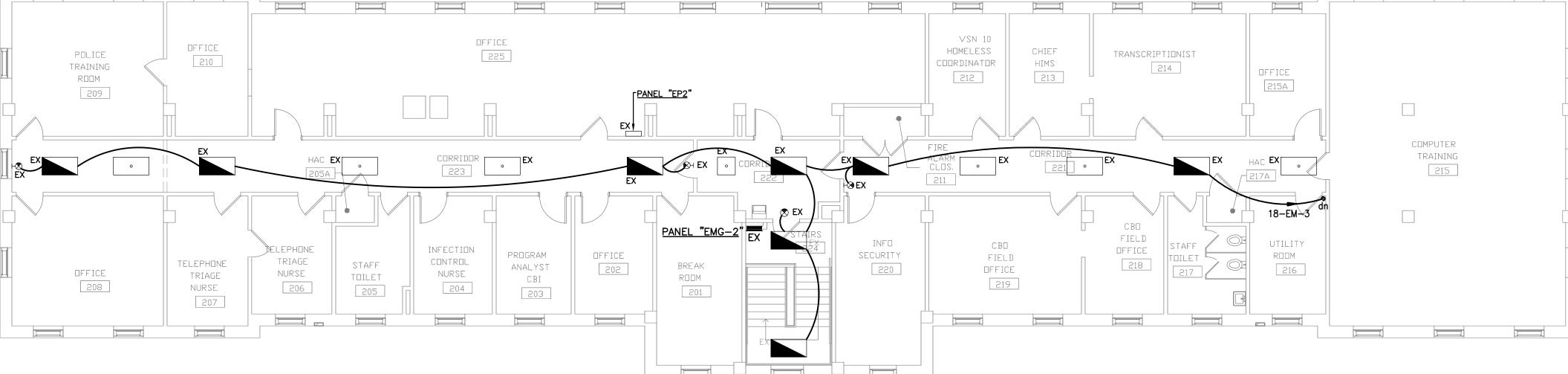
- A. PROVIDE DEDICATED NEUTRAL FOR ALL 120V CIRCUITS.
- B. WIRE ALL EXIT SIGNS AHEAD OF LOCAL SWITCHING.
- C. PROVIDE PROGRAMMED RAPID START BALLASTS FOR ALL T8 FLUORESCENT FIXTURES AND SUBMIT BALLAST INFORMATION DURING SHOP DRAWING REVIEW.
- D. (1) BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE(3) CIRCUITS. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPARATE NEUTRAL AND GREEN
- E. DIVISION 26 CONTRACTOR IS RESPONSIBLE FOR ALL SWITCH LEGS (MAY NOT BE SHOWN FOR BETTER CLARITY ON DRAWINGS) AS REQUIRED FOR A COMPLETE
- F. UPDATE ALL PANEL INDEX CARDS UPON COMPLETION OF PROJECT.

INSULATED EQUIPMENT GROUNDING CONDUCTOR.

- G. THESE ENGINEERING DRAWINGS DO NOT INDICATE IF NEW DEVICES ARE TO BE RECESSED OR SURFACE MOUNTED ON EXISTING WALLS. IF A NEW DEVICE LOCATION MATCHES AN EXISTING RECESSED ROUGH-IN LOCATION IN PLASTER/MASONRY WALLS WHERE AN EXISTING DEVICE WAS REMOVED, THE CONTRACTOR IS ENCOURAGED TO UTILIZE THE EXISTING ROUGH-IN. WHERE AN EXISTING ROUGH-IN CAN NOT BE UTILIZED, PROVIDE SURFACE MOUNTED RACEWAY (ONE-PIECE STEEL CHANNEL, APPROX. 0.25"Hx0.75"W) AND BOX. DEVICES SHOWN TO BE INSTALLED ON EXISTING OR NEW DRYWALL CONSTRUCTION SHALL BE FLUSH MOUNTED. REFER TO ARCHITECTURAL NEW WORK PLANS AND WALL SCHEDULES FOR DESCRIPTIONS OF WALL CONDITIONS. DIVISION 26 TO CUT AND PATCH WALL FOR A COMPLETE INSTALLATION. ADJUST EXACT LOCATIONS IN THE FIELD TO AVOID CONFLICTS WITH EXISTING BUILDING ELEMENTS. ALL EXISTING RECESSED BOXES NOT USED SHALL BE BLANKED OFF WITH S.S. COVERPLATE. CONTRACTOR IS STRONGLY URGED TO FIELD VERIFY THIS WORK DURING THE BIDDING PERIOD.
- H. CONTRACTOR SHALL MAINTAIN CONTINUITY OF NORMAL POWER LIGHTING CIRCUITS WITHIN CORRIDOR CAUSE BY FIXTURES REMOVED FOR ASSOCIATED EGRESS LIGHTING WORK.

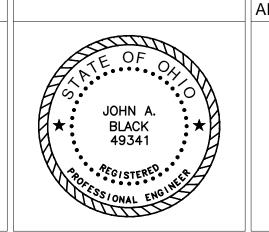
#### ○ NOTES

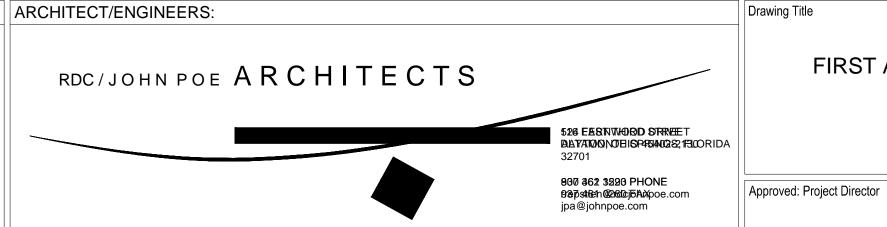
- 1. EXTEND NEW CIRCUIT FROM 18-EM TO EXISTING FIRE ALARM CONTROL PANEL CIRCUIT. INTERCEPT EXISTING CIRCUIT. REMOVE EXISTING CIRCUITRY BACK TO SOURCE. UPDATE EXISTING PANEL INDEX CARD WHEN COMPLETE.
- 2. EXISTING SERVER ROOM PANELS "A" & "B" AND NEW SERVER ROOM PANEL "C" SHALL BE KEYED THE SAME (VAMC STANDARD "BEST" KEY LOCK SETS). COORDINATE FINAL CONFIGURATION WITH THE COTR PRIOR TO
- 3. CONNECT NEW GF/WP RECEPTACLE TO EXISTING LOCAL RECEPTACLE. VERIFY CIRCUIT HAS ENOUGH SPARE CAPACITY PRIOR TO TIE-IN.
- 4. PROVIDE SIMPLEX FIRE ALARM CONTROL MODULE WITH N.C. CONTACT TO OPEN FOR ANY SERVER ROOM (SAPPHIRE) ALARM CLOSING THE SMOKE DAMPER. EXTEND N.C. CONTACT FROM CONTROL MODULE TO BUILDING FIRE ALARM PANEL LOCATED IN FIRST FLOOR LOBBY AREA.
- 5. PROVIDE SIMPLEX FIRE ALARM CONTROL MODULE WITH N.C. CONTACT TO OPEN FOR ANY SERVER ROOM (SAPPHIRE) ALARM SHUTTING DOWN EACH OF THE HVAC UNITS. EXTEND N.C. CONTACT FROM CONTROL MODULE TO BUILDING FIRE ALARM PANEL LOCATED IN FIRST FLOOR LOBBY AREA.
- 6. PROVIDE YELLOW MUSHROOM HEAD (2" DIA.), MAINTAINED PUSH BUTTON WITH PUSH-PULL ACTION. PROVIDE WALLBOX WITH COVERPLATE LABELED "EMERGENCY 18-H1 & 18-H3 SHUTDOWN". NAMEPLATE SHALL BE YELLOW WITH 1/4" BLACK LETTERS. WIRE TO SHUNT TRIP FUNCTION IN EACH MECHANICAL UNIT (18-H1 & 18-H3).



Heapy Engineering Nationally Recognized Leader in Sustainability / LEED 1400 W Dorothy Lane, Dayton OH 45409-1310 Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com Heapy Project Number: 2012-04019 Firm License: 01528

CONSULTANTS:









Chillicothe, Ohio

MSG

Project No.

VA Project No. JPA Project No. Building Number

Office of Construction and Facilities Management